



**WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
PHASE III APPENDIX I DETECTION MONITORING
APRIL 2012 SAMPLING EVENT**

S&ME Project No.1584-98-081

Prepared For:



The City of Greensboro

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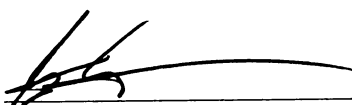

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1. EXECUTIVE SUMMARY

Eleven monitoring wells and three stream locations at the lined Subtitle D White Street Landfill were sampled between April 18 and 20, 2012. Ten wells (MW-17, MW-18, MW-19, MW-20, MW-21, MW-22, MW-23, MW-24, MW-25, and MW-25d) comprise the groundwater monitoring system for the lined Subtitle D solid waste disposal area of the landfill, also known as Phase III. MW-25 was not sampled due to insufficient water in the well at the time of sampling. Monitoring wells MW-15 and MW-16 serve as background wells for Phase III. The collected samples were submitted to a North Carolina certified laboratory for analysis using the federal Appendix I list of volatile organic and inorganic constituents for detection monitoring. Samples from surface water locations SW-1, SW-2 and SW-3 were analyzed for federal Appendix I detection monitoring constituents.

Analytical results from the 11 sampled Phase III monitoring wells detected no Appendix I volatile organic compounds at the sampled locations. No Appendix I metals were detected at concentrations which exceed the corresponding NCAC 2L groundwater quality standard. During this event, vanadium and cobalt were detected in the groundwater samples collected from one or more monitoring wells. Currently, there are no established NCAC 2L standards for cobalt and vanadium. However, North Carolina has published an Interim Maximum Allowable Concentrations (IMAC) for vanadium set at 0.3 µg/L and 1 µg/L for cobalt. Each of the cobalt and vanadium concentrations reported during this event were greater than their corresponding IMAC. Time vs concentration graphs for cobalt and vanadium do not suggest trends of increasing concentrations of these parameters and these detections do not represent statistically significant increases (SSI) over background values. Therefore, the detected concentrations may not be indicative of a release from the monitored unit.

S&ME previously completed an Alternate Source Demonstration (ASD) for metals in the adjoining Phase II portion of the White Street Landfill Facility. The results of the ASD show that cobalt and vanadium concentrations above the respective IMAC values are not likely due to a release by the Facility, but instead may be attributed to the natural occurrence of these substances in the native, residual soil at concentrations sufficient to influence the concentrations of cobalt and vanadium in groundwater samples. Although the ASD was undertaken in the Phase II portion of the Facility, the ASD is likely applicable to the Phase III portion of the Landfill, as such the detected cobalt and vanadium concentrations may not be indicative of a metals release from the Facility.

The laboratory analytical results were examined for evidence of statistically significant increases (SSIs) over background values. The statistical analyses suggest that no SSIs occurred during the current groundwater monitoring event.

Several volatile organic compounds and inorganic constituents were detected or laboratory estimated in one or more of the surface water samples collected. Based on the sampled locations and the reported concentrations, the compounds detected in the surface water samples likely stem from up-stream, off-site sources or laboratory contamination and do not suggest a release of these constituents from Phase III at the facility.

2. INTRODUCTION

White Street Landfill is a Solid Waste Management Facility (SWMF) located at the north end of White Street in northeastern Greensboro. The City of Greensboro operates this lined Subtitle D landfill, referred to as Phase III, under Solid Waste Permit #41-12. Ten wells (MW-17, MW-18, MW-19, MW-20, MW-21, MW-22, MW-23, MW-24, MW-25, and MW-25d) comprise the groundwater monitoring system for the lined Subtitle D solid waste disposal area of the landfill. Monitoring wells MW-15 and MW-16 serve as background wells for Phase III. The monitoring well locations are shown on **Figure 1**

S&ME, Inc. (S&ME) was contracted by the City of Greensboro to conduct this bi-annual water quality monitoring event. Groundwater samples were collected from two upgradient and 9 of the 10 down-gradient monitoring wells that are located along the perimeter of the Phase III disposal area. MW-25 was not sampled due to insufficient water in the well at the time of sampling. Surface water samples were collected in accordance with the approved site Water Quality Monitoring Plan.

The Phase III monitoring well samples were analyzed for the RCRA Subtitle D Appendix I parameters. The surface water samples were also analyzed for the Appendix I list of constituents. This report discusses the field procedures, summarizes the field measurements and analytical results, and presents the statistical evaluation results for the April 2012 water quality monitoring event.

3. SCOPE OF WORK

S&ME completed the following tasks as part of this monitoring event:

- Sampled the 11 of the 12 monitoring wells and three surface water locations. MW-25 was not sampled based the well was dry
- Obtained field values for pH, temperature, dissolved oxygen (DO), turbidity, oxidation-reduction potential (ORP), and conductivity at each sample location.
- Collected depth to water measurements during well purging to monitor drawdown.
- Had the samples analyzed for Appendix I constituents by a North Carolina certified laboratory using State approved methods.
- Determined groundwater flow rates and directions at the Phase III area monitoring well locations.
- Collected a sample of landfill leachate from the wet well for laboratory analyses.
- Prepared and submitted reports to the City of Greensboro and the NCDENR.

4. METHODS EMPLOYED

4.1 Monitoring Well Sampling

Between April 18 and April 20, 2012 monitoring wells MW-15, MW-16, MW-17, MW-18, MW-19, MW-20, MW-21, MW-22, MW-23, MW-24, and MW-25d were sampled. MW-25 was not sampled due to insufficient water in the well at the time of sampling. Prior to sampling, a representative from S&ME opened each well and measured the static

water level from the top edge of the PVC casing. Since dedicated MicroPurge pumps were previously installed in each groundwater monitoring well as described in the monitoring well construction details reported in the “Baseline Groundwater Monitoring Report, Phase III” prepared by G.N. Richardson and Associates, dated May 1998, micro purge sampling techniques were used for groundwater sample collection. Monitoring well construction details from the same report were used to determine the volume of water in the monitoring wells. Depth to groundwater and calculated groundwater elevation data are summarized in **Table 1**.

At each well, the purge rate and the drawdown of the water table were monitored as an indicator of how much stress the purging placed on the aquifer. The purge rates were calculated by recording the time required to fill a graduated cylinder. The purging flow rate was approximately 100 milliliters/minute (ml/min.). During purging, the depth to water was periodically monitored and recorded on the groundwater sampling field data sheets.

For the Phase III sampling event, the measured drawdown in the sampled wells is generally less than 3 feet. The field data sheets are included in **Appendix I**.

Groundwater samples were collected from the dedicated Teflon tubing at each of the pumped wells. Immediately upon collection, each sample was placed into laboratory supplied containers, packed on ice, and placed under chain-of-custody. The sampling technician wore nitrile gloves, which were changed between wells to reduce the possibility of cross contamination. All samples collected from Phase III monitoring wells were analyzed for Appendix I volatile organic and inorganic constituents. Analyses were conducted by Environmental Conservation Laboratories, a North Carolina certified laboratory.

4.2 Statistical Analysis of Data

4.2.1 Software

All data were analyzed using *ChemStat 6.2* software package. The *ChemPoint 4.4* database management system was used to input and create the Data files based on the recent and historic laboratory data. The *ChemPoint* database is then converted to an ASCII tab delimited file for use by the *ChemStat* software. The following procedures were used to carry out statistical analyses of the data for each constituent.

4.2.2 Statistical Methods-Groundwater Analyses

In accordance with the NCDENR-Solid Waste Management Rules 15A NCAC 13B, Section 1632, historical upgradient and cross gradient groundwater monitoring data collected from the background groundwater monitoring wells that comprise the Subtitle D monitoring well system were pooled and the analytical results were used to create a statistical baseline for statistically significant increases in constituent concentrations. This sampling round (April 2012) will be incorporated into the baseline for the next round of sampling.

The following procedure is used to analyze each new data set:

A descriptive statistics program is run to provide the following information about the data.

- mean
- standard deviation
- variance
- percentage non-detects
- Time versus concentration graphs were prepared for each parameter detected at a quantifiable concentration and used to evaluate data trends and to identify potential data outliers.
- Normality/Data Distribution Tests were run and used to determine the statistical distribution of the database for each quantified parameter. The data distribution test results were utilized to determine if a data set exhibits a normal, log-normal or non-normal distribution. Due to the large number of non-detects for many of the wells and the lack of normality in the data sets, non-parametric statistical methods were deemed appropriate for the evaluation of the current compliance data set.
- A statistical Upper Limit was calculated for each of the detected parameter data sets utilizing Non-Parametric Upper Tolerance Limits. Then the compliance data were compared via an Inter-Well comparison to the statistical Upper Limit to determine if an SSI had occurred. For all statistical analyses, the non-detect values were converted to the respective Detection Limit for data analysis. The tests were run at significance levels of both 95% and 99%.
- If data shows statistically significant increases across the site, the results are examined to determine the validity of results.

4.3 Stream Sampling

Surface water sampling took place on April 18, 2012. Three stream samples (SW-1, SW-2 and SW-3) were collected in accordance with the approved site Sampling and Analysis Plan. The stream sample locations are indicated on **Figure 2**. The surface water samples were collected by immersing laboratory-supplied containers in the water to be sampled. After collection, the surface water samples were packed on ice and placed under chain-of-custody. All stream samples were analyzed for Appendix I inorganic and volatile organic constituents by Environmental Conservation Laboratories; a North Carolina certified laboratory.

5. RESULTS

5.1 Groundwater Analytical Results

The results of the laboratory analyses for Appendix I constituents in the Phase III area groundwater monitoring wells are summarized in **Table 2** and **Table 3**, with the complete laboratory reports included in **Appendix II**.

- No Appendix I volatile organic compounds were detected in the monitoring wells sampled during this event.
- The Appendix I metals barium, chromium, copper, lead, nickel, and zinc were detected at one or more of the 11 wells sampled in Phase III. Many of the reported concentrations of these metals were values between the Method Detection Limit (MDL) and the North Carolina Solid Waste Section Limit (SWSL) for the respective constituent and are therefore flagged as a “J” value and considered only estimated values. The reported concentrations for these constituents are less than their corresponding NCAC 2L standards.
- Currently, there is no established 15A NCAC 2L groundwater standard for antimony. North Carolina recently published an Interim Maximum Allowable Concentrations (IMAC) for antimony set at 1.4 µg/L. During this event antimony was reported at background wells MW-15 and MW-16, and compliance wells MW-17 and MW-19. Each of the estimated “J” flagged values is less than the IMAC value.
- Currently, there is no established 15A NCAC 2L groundwater standard for cobalt. North Carolina recently published IMAC for cobalt set at 1 µg/L. During this event cobalt was reported at wells MW-16, MW-18, and MW-24. Each of the estimated “J” flagged values exceeds the IMAC value.
- Currently, there is no established 15A NCAC 2L groundwater standard for vanadium. However, North Carolina has published an IMAC for vanadium set at 0.3 µg/L. During this event vanadium was reported at wells MW-17, MW-19, MW-20, MW-24, and MW-25d. Each of these estimated “J” flagged values exceeds the IMAC.

No other Appendix I metal was detected in any of the remaining Phase III monitoring wells sampled, on the dates the samples were collected.

5.2 Statistical Results

5.2.1 Overview of Database

The “Baseline Groundwater Monitoring Report, Phase III Cell, White Street Sanitary Landfill,” prepared by G.N. Richardson & Associated, dated June 1998, summarizes the baseline monitoring data. The baseline monitoring samples were collected using the hand bailing procedures outlined in the approved Water Quality Monitoring Plan. Prior to the October 1998 monitoring event, but subsequent to the Baseline Groundwater Monitoring Report, the facility’s approved Water Quality Monitoring Plan was modified to permit the use of dedicated MicroPurge pumps for monitoring well sample collection.

The statistical evaluations discussed herein were only performed on parameters detected during the subject monitoring event. In our statistical evaluation, non-detects are assigned values equal to their respective detection limits. This method of handling non-detects was used as part of the statistical analyses completed as part of the baseline water quality monitoring evaluations as set forth in the NC Solid Waste Section memo dated January 18, 1995.

5.2.2 Statistical Analyses

5.2.2.1 Descriptive Statistics

The descriptive statistics program calculates the pooled mean, background mean, pooled standard deviation, background standard deviation, rank sum, rank mean, and variance for each constituent detected in each well. The percentages of all sample analyses for which the concentrations are below the quantitation limits (non-detects) are also calculated by constituent for each well. The descriptive statistics report is included in **Appendix III**.

5.2.2.2 Time vs. Concentration Graphs

This graph displays a plot of the concentration of one parameter for a single well over time. The concentration is plotted along the vertical axis and the sample dates are plotted along the horizontal axis. The graphs are used to visually examine changes in concentration over time for a parameter at a given well. The graphs can be found in **Appendix IV**.

- The time vs. concentration graphs for barium at wells MW-16, MW-22, and MW-24 indicate that the first detection of barium in these wells occurred during the 2007 groundwater monitoring year and appear to be only the result of the promulgation of the new North Carolina SWSL levels which are lower than the former Practical Quantitation Limits (PQLs) which the SWSLs replaced. These graphs, which include the most recent sampling event, show a relatively consistent concentration of barium after barium was first detected in 2007 with no apparent increasing or decreasing trends.
- Time series plots of the concentration of cobalt in well MW-18 suggest a decreasing trend in the concentration of cobalt over time.
- Time series plots of the concentrations of cobalt in wells MW-16 and MW-24 suggest fluctuating concentrations over time, with no obvious consistent trends over time recognized.
- The time series plot for concentrations of copper in well MW-24 does not show a clear trend in the monitoring data. Observed changes appear to be only be the result of the promulgation of the new North Carolina SWSL levels which are lower than the former Practical Quantitation Limits (PQLs) which the SWSLs replaced.
- Time vs. concentration graphs were prepared for vanadium at wells MW-17, MW-19, MW-20, MW-24, and MW-25d. As with copper, the detections of vanadium in the above listed wells appear to coincide with the promulgation of the new North Carolina SWSL levels in 2007 which are lower than the former Practical Quantitation Limits (PQLs) which the SWSLs replaced. These graphs, which include the most recent sampling event, show a relatively consistent concentration of vanadium in these wells after vanadium was first detected in 2007 with no apparent increasing or decreasing trends.

- The time vs. concentration graphs for zinc at well MW-24 shows a relatively consistent concentration of zinc in MW-24 after zinc was first detected in 2007 with no apparent increasing or decreasing trends. Again, the detections of zinc in well MW-24 appears to coincide with the promulgation of the new North Carolina SWSL levels in 2007 which are lower than the former Practical Quantitation Limits (PQLs) which the SWSLs replaced.

The time series plots discussed above are included in **Appendix IV**.

Analytical data from future monitoring events will be used to re-evaluate the trends interpreted from the time series plots.

5.2.2.3 Interwell Statistical Comparisons

Non-parametric Upper Tolerance Intervals were calculated from the background data set to determine if any detected individual compliance parameter concentration represents a statistically significant increase over the historic background concentrations. This test method compares the analytical data from each compliance well during the current sampling event to Upper Limits computed from the pooled background data set.

5.2.2.4 Non-Parametric Tolerance Limits Test

In order to analyze the laboratory analytical results for evidence of statistically significant increases (SSIs) over background values, the data distribution of all of the detected monitored constituents was first analyzed. Due to the large size of the pooled historical results database, the Shapiro-Francia Test of Normality was utilized. This statistical test of data distribution can effectively determine if large data sets are parametrically or non-parametrically distributed.

For all of the analyzed data sets, the data distribution tests indicated a non-parametric distribution likely due to a relatively high percentage of non-detects in the analyzed database even at the 95% Confidence Level. As a result, Non-Parametric Upper Limits Computations were employed in order to calculate the appropriate Statistical Upper Limit for each of the detected monitored parameters. Non-parametric Tolerance Limits were selected for use in calculation of the statistical Upper Limits. In order to determine if any individual parameter concentration detected during this monitoring event represents a statistically significant increase over the historic background concentrations, once the respective Upper Limit was obtained, the compliance data were compared via an Inter-Well Comparison to the Statistical Upper Limit to determine if an SSI may have occurred.

The statistical analyses suggest that no SSIs occurred during this monitoring event.

The computations used to calculate the normality of the data distribution are included in **Appendix V**. The Non-Parametric Upper Tolerance Limits are included in **Appendix VI**.

5.3 Hydraulic Conductivity

In-situ hydraulic conductivity tests were performed by G.N. Richardson and Associates, Inc. (GNRA) on wells MW-16, MW-17, MW-18, MW-20, MW-21, MW-23, MW-25, during January 1998. The in-situ hydraulic conductivity tests were performed by GNRA on monitoring wells MW-15, MW-19, MW-22, MW-24, and MW-25d during March 1998. The data from these tests yielded hydraulic conductivity values ranging from 0.090 feet/day (in MW-24) to 3.269 feet/day (in MW-18). A complete discussion of the test methods and calculations was presented in the “Baseline Groundwater Monitoring Report, Phase III” prepared by G.N. Richardson and Associates, dated May 1998. This data is summarized on **Table 4** and was used to calculate groundwater flow velocities across the site.

5.4 Groundwater Flow Direction and Rate

The static water levels in the Phase III monitoring wells were measured in April 2012. The depth to the water table ranged from 3.56 feet to 27.80 feet below the top of well casing on those dates. Groundwater and well casing elevation data are presented in **Table 1** and summarized on **Figure 1**. A groundwater contour map was constructed using the data collected in April 2012 and is presented as **Figure 1**. Based on our field data, groundwater appears to be flowing north-northwest beneath the west half of Phase III and generally to the north-northeast in the eastern half of Phase III. The groundwater gradient at each well was calculated assuming a constant groundwater gradient along the flow line between adjacent groundwater elevation contours or between the compliance well and the upgradient well.

Based on a variation of Darcy’s Law, the rate of groundwater movement within the regolith aquifer was calculated at each monitoring well using the following equation:

$$V = \frac{Ki}{n}$$

Where **V** = velocity (ft/day)
 K = hydraulic conductivity (ft/ft)
 i = groundwater gradient (ft/ft)
 n = effective porosity (dimensionless)

Calculated hydraulic conductivity and gradient values and estimated effective porosity values for each well were used in the velocity calculations. The 20 percent effective porosity value is based on porosity and specific yield versus grain size distribution relationships presented in Fetter (1988), and is typical of the types of soils (predominantly silts and sandy silts with some clays) comprising the regolith at the landfill. The calculated groundwater velocities ranged from 0.010 ft/day at monitoring well MW-24 to 0.469 ft/day at monitoring well MW-18 and are summarized in **Table 4**.

5.5 Surface Water

The results of the laboratory analyses for Appendix I constituents in the surface water samples are summarized in **Table 5** and **Table 6**. The complete laboratory reports are included in **Appendix II**.

- Bromodichloromethane was reported at estimated “J” flagged value of 0.67 µg/L in sample SW-3 which exceeds the NCAC 2B surface water standard of 0.55 µg/L.
- Trichloroethene and chloroform were detected at a “J” flagged concentrations in sample SW-3; the concentrations reported are below the corresponding NCAC 2B standard.
- Antimony, arsenic, barium, chromium, copper, lead, nickel, and zinc were reported at quantified or estimated “J” flagged concentrations at one or more sampled locations. The concentrations reported are below the corresponding NCAC 2B standards.
- Inorganic constituent vanadium was detected at sample locations SW-1 and SW-3. Currently, there is no corresponding NCAC 2B surface water quality standard for this constituent.

Sample locations SW-1 and SW-3 are located up stream of the Phase III, and represent background surface water conditions. Based on reported background water quality data the surface water analytical data discussed above does not suggest a release of these constituents from Phase III at the facility.

5.6 Leachate Sample Analytical Results

On April 17, 2012, a sample of leachate was collected from the wet well in Phase III. The collected sample was submitted for laboratory analyses for Appendix I constituents plus Nitrate, Sulfur, Sulfate, Phosphate, Biological Oxygen Demand and Chemical Oxygen Demand. **Table 7** provides a summary of the associated analytical results.

5.7 Quality Assurance

A qualitative review of the data was performed to verify that the detected concentrations in the laboratory report were of known quality. A formal, quantitative data validation was not performed. Laboratory-assigned data qualifiers were evaluated to verify that rejected or unsupported data were not included in the dataset. Quality control data provided in the laboratory reports were also reviewed. No rejected or otherwise unacceptable quality data were reported from the laboratory.

During this event a duplicate sample was collected from monitoring well MW-21 and submitted for analysis as "Duplicate III." This sample was analyzed for Appendix I inorganics and volatile organics. The detected constituents in MW-21 were similar to those of "Duplicate III" and the reported concentrations for these constituents were also similar, suggesting a good correlation between the sample analytical results. Trip blank samples accompanied the sample bottles from the time they left the laboratory until they returned. These samples were analyzed for Appendix I volatile organic and inorganic constituents. No volatile organic or inorganic constituents were present in the trip blank samples at detectable levels. Laboratory QC samples were analyzed for all constituents included in this sampling event. The results of the duplicate, trip blank, and laboratory QC sample analyses are included in **Appendix II**. The NCDENR Environmental Monitoring Reporting Form is included in **Appendix VII**.

6. REFERENCES

Fetter, C. W., 1988, Applied Hydrogeology, New York; Macmillan Publishing Company, 1988, 592 pp.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2L, Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina, Sections .0100, .0200, and .0300 (November 8, 1993); from the Environmental Management Commission Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2B, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina, Section .0200 (April 1, 1991); from the Environmental Management Commission, Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Solid Waste Management, subchapter 13B, Solid Waste Management, Section .1600 (January 1, 1997).

TABLES

Table 1
Groundwater Elevation Data Summary
Phase III - White Street Landfill
Greensboro, North Carolina
S&ME Project No. 1584-98-081

Well No.	Elevation TOC (feet)	Depth of Well (feet)	Static Water Levels			
			October 2011		April 2012	
			DTGW (feet)	Elevation (feet)	DTGW (feet)	Elevation (feet)
MW-15	794.81	60.0	29.39	765.42	27.80	767.01
MW-16	758.02	28.5	23.64	734.38	20.61	737.41
MW-17	755.05	31.5	13.93	741.12	11.73	743.32
MW-18	742.70	17.5	11.54	731.16	10.42	732.28
MW-19	740.70	35.0	19.93	720.77	15.14	725.56
MW-20	748.87	25.0	15.94	732.93	14.76	734.11
MW-21	743.32	18.5	8.38	734.94	5.79	737.53
MW-22	744.43	30.0	10.61	733.82	9.64	734.79
MW-23	744.25	33.5	12.78	731.47	12.18	732.07
MW-24	752.52	12.0	5.01	747.51	3.65	748.87
MW-25	746.47	17.0	dry	dry	dry	dry
MW-25d	746.19	32.0	14.74	731.45	13.56	732.63

TOC = Top of Casing. Elevations determined by survey: HDR Engineering, Inc.
Depth of well data as reported by HDR Engineering Inc. and G.N. Richardson & Associates
DTGW = Depth to Groundwater
Elevation = calculated groundwater elevation
dry = water level below dedicated pump elevation

Table 2
Summary of Groundwater Analytical Results - April 2012
Detected Appendix I - Volatile Organic Compounds
Phase III - White Street Landfill
Greensboro, North Carolina
S&ME Project No. 1584-98-081

Compound	Sample Locations													NC SWSL	NCAC 2L
	Background Wells		Compliance Wells										QA/QC		
	MW-15 (ug/L)	MW-16 (ug/L)	MW-17 (ug/L)	MW-18 (ug/L)	MW-19 (ug/L)	MW-20 (ug/L)	MW-21 (ug/L)	MW-22 (ug/L)	MW-23 (ug/L)	MW-24 (ug/L)	MW-25 (ug/L)	MW-25d (ug/L)	DUP#3 (ug/L)	(ug/L)	stds. (ug/L)
All Target Compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND		

NC SWSL= North Carolina Solid Waste Section Limit

J = Parameters are estimated values between the detection limit and the NC SWSL.

JB = analyte detected in method blank and at a concentrations between the detection limit and the NC SWSL

NS = Not Sampled

ND = Compound not detected in sample

NCAC 2L stds. = 15A North Carolina Administrative Code 2L .0200, Groundwater Quality Standards for Class GA groundwater

Quantities highlighted in orange were detected above the 2L standards

Table 3
Summary of Groundwater Analytical Results - April 2012
Detected Appendix I - Metals
Phase III - White Street Landfill
Greensboro, North Carolina
S&ME Project No. 1584-98-081

Compound	Sample Locations													NC SWSL	NCAC 2L	NC IMAC
	Background Wells		Compliance Wells										QA/QC			
	MW-15 (ug/L)	MW-16 (ug/L)	MW-17 (ug/L)	MW-18 (ug/L)	MW-19 (ug/L)	MW-20 (ug/L)	MW-21 (ug/L)	MW-22 (ug/L)	MW-23 (ug/L)	MW-24 (ug/L)	MW-25 (ug/L)	MW-25d (ug/L)	DUP#3 (ug/L)	(ug/L)	stds. (ug/L)	(ug/L)
Antimony	0.881 J	0.500 J	0.239 J	ND	0.254 J	ND	ND	ND	ND	ND	NS	ND	ND	6	ns	1.4
Barium	27.6 J	114	53.8 J	24.2	25.0 J	70.3 J	36.1 J	136	56.9 J	393	NS	14.6 J	36.5 J	100	700	
Chromium	ND	ND	1.25 J	ND	1.14 J	1.07 J	ND	ND	ND	1.10 J	NS	3.05 J	ND	10	10	
Cobalt	ND	1.96 J	ND	1.20 J	ND	ND	ND	ND	ND	5.33 J	NS	ND	ND	10	ns	1
Copper	ND	2.25 J	ND	ND	ND	ND	5.29 J	ND	ND	13.1	NS	ND	ND	10	1000	
Lead	1.94 J	2.86 J	ND	ND	ND	ND	ND	ND	ND	3.50 J	NS	2.17 J	ND	10	15	
Nickel	ND	2.22 J	ND	ND	ND	2.79 J	ND	ND	ND	2.75 J	NS	ND	ND	50	100	
Vanadium	ND	ND	1.79 J	ND	5.48 J	5.56 J	ND	ND	ND	2.87 J	NS	3.43 J	ND	25	ns	0.3
Zinc	ND	ND	ND	ND	ND	ND	ND	ND	ND	14.8	NS	ND	ND	10	1000	

NC SWSL= North Carolina Solid Waste Section Limit

NS = Not Sampled (dry well)

ND = Compound not detected in sample

NCAC 2L stds. = 15A North Carolina Administrative Code 2L .0200, Groundwater Quality Standards for Class GA groundwater

If a NCAC 2L is not established the Groundwater Protection Standard is used

NC IMAC = 15A NCAC 2L Interim Maximum Allowable Concentration (IMAC)

J = Parameters are estimated values between the detection limit and the NC SWSL.

ns = no corresponding NCAC 2L groundwater quality standard

ug/L = all concentrations reported in micrograms per liter (ug/L)

Quantities highlighted in orange were detected above the 2L standards

Blue highlights indicate a measurement higher than IMAC (2010)

Table 4
Groundwater Velocity Data - April 2012
Phase III - White Street Landfill
Greensboro, North Carolina
S&ME Project No. 1584-98-081

Well No.	Hydraulic Conductivity (K = feet/day)	Porosity (n = %)	Gradient (I = feet/feet)	Groundwater Velocity (V= feet/day)
MW-15	0.265	0.20	0.020	0.027
MW-16	0.331	0.20	0.020	0.033
MW-17	0.160	0.20	0.044	0.035
MW-18	3.269	0.20	0.029	0.469
MW-19	0.716	0.20	0.022	0.079
MW-20	1.336	0.20	0.017	0.115
MW-21	0.681	0.20	0.018	0.060
MW-22	0.325	0.20	0.020	0.033
MW-23	0.173	0.20	0.044	0.038
MW-24	0.090	0.20	0.023	0.010
MW-25	2.088	0.20	WD	WD
MW-25d	0.827	0.20	NA	NA

Notes: Hydraulic Conductivity's from slug test data: G.N. Richardson & Associates
Porosity values from published literature, based on soil types
Velocity calculated using $V = KI/n$
NA = Not Applicable, deeper aquifer monitoring well
WD = Well Dry at time of sampling

TABLE 5
SUMMARY OF SURFACE WATER ANALYTICAL RESULTS - APRIL 2012
DETECTED APPENDIX I - VOLATILE ORGANIC COMPOUNDS
PHASE III - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081

Compound	Sample Locations			15A NCAC 2B Standards*	NC SWSL
	SW-1 (ug/L)	SW-2 (ug/L)	SW-3 (ug/L)		
Bromodichloromethane	ND	ND	0.67 J	0.55	1
Chloroform	ND	ND	1.0 J	5.6	5
Trichloroethene	ND	ND	0.69 J	2.5	1

NC SWSL = North Carolina Solid Waste Section Limit

ND = Parameter not detected

* = Title 15A NCAC 2B Standards for Class C, WS-V surface water

J = Parameters are estimated values between the detection limit and the NC SWSL.

ns = Title 15A NCAC 2B provides no established standard for these constituents

Orange highlights indicate a measurement higher than 2B standards.

TABLE 6
SUMMARY OF SURFACE WATER ANALYTICAL RESULTS - APRIL 2012
DETECTED APPENDIX I - METALS
PHASE III - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081

Compound	Sample Locations			15A NCAC 2B Standards* (ug/L)	NC SWSL (ug/L)
	SW-1 (ug/L)	SW-2 (ug/L)	SW-3 (ug/L)		
Arsenic	ND	ND	3.12 J	10	10
Antimony	0.279 J	ND	0.340 J	5.6	6
Barium	43.7 J	48.4 J	23.5 J	1000	100
Chromium	1.11 J	ND	ND	50**	10
Copper	2.72 J	ND	5.01 J	7**	10
Lead	ND	ND	2.38 J	25**	10
Nickel	ND	ND	2.56 J	25	50
Vanadium	2.33 J	ND	1.48 J	ns	25
Zinc	5.98 J	ND	32.0	50**	10

NC SWSL = North Carolina Solid Waste Section Limit

ND = Parameter not detected

* = Title 15A NCAC 2B Standards for Class C, WS-V surface water

** = ***Freshwater Standard***

J = Parameters are estimated values between the detection limit and the NC SWSL.

ns = Title 15A NCAC 2B provides no established standard for these constituents

Orange highlights indicate a measurement higher than 2B standards.

Table 7
Summary of Leachate Sample Analytical Results
Phase III - White Street Landfill
Greensboro, North Carolina
S&ME Project No. 1584-98-081

Appendix I Volatile Organic Compounds							
Parameter	"Leachate" October-09 (µg/L)	"Leachate" April-10 (µg/L)	"Leachate" October-10 (µg/L)	"Leachate" May-11 (µg/L)	"Leachate" October-11 (µg/L)	"Leachate" April-12 (µg/L)	NC SWSL (µg/L)
Chloroethane	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	10
Trichlorofluoromethane	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	1
Acetone	28000*	13000*	1100*	3700 D	2200 D	4800 D	100
Methylene Chloride	BQL*	BQL*	5.6*	BQL*	BQL*	BQL*	1
Styrene	BQL*	BQL*	7.7 J	BQL*	6.8 JD	BQL*	10
1,1-Dichloroethane	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	5
cis 1,2-dichloroethene	BQL*	BQL*	10*	BQL*	10 D	BQL*	5
4-Methyl-2-pentanone	300* J	620*	150*	200 D	240 D	140 JD	100
2-Hexanone	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	50
2-Butanone	19000*	5700 *	1200*	4200 D	2500 D	4700 D	100
1,1,1-Trichloroethane	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	1
Benzene	BQL*	BQL*	5.2*	BQL*	14 D	BQL*	1
Trichloroethene	BQL*	BQL*	BQL*	BQL*	BQL*	BQL*	1
Toluene	42 JD	40*	150*	160 D	180 D	97 JD	1
Ethylbenzene	BQL*	BQL*	57*	72 D	65 D	36 JD	1
Total Xylenes	46 JD	50*	240*	250 D	250 D	160 JD	5
1,4-Dichlorobenzene	BQL*	BQL*	23*	28 D	22 D	BQL*	1
Appendix I Metals							
Compound	"Leachate" October-09 (µg/L)	"Leachate" April-10 (µg/L)	"Leachate" October-10 (µg/L)	"Leachate" May-11 (µg/L)	"Leachate" October-11 (µg/L)	"Leachate" April-12 (µg/L)	NC SWSL (ug/L)
Antimony	17.1 JD	12.4 JD	19.4 JD	15.7 JD	56.6 D	29.2 D	6
Arsenic	76.6	40.0	41.5	53.9	83.6	113	10
Barium	456 B	508	681	899	735	661	100
Cadmium	BQL	BQL	BQL	BQL*	BQL	BQL*	1
Chromium	76.4	60.5	49.4	77.1	54.4	52.2	10
Cobalt	31.1	28.0	22.4	39.8	25.7	26.9	10
Copper	BQL	BQL	BQL	47.6	BQL	32.0	10
Lead	10.2	2.48	1.97	9.44 J	BQL	BQL*	10
Nickel	174	136	129	168	155	153	50
Selenium	BQL	96.6 D	60.6	97.2 D	BQL	BQL*	10
Silver	2.14 J	4.18	BQL	BQL*	4.14 J	BQL*	10
Thallium	3.76 JD	BQL	BQL	18.8 D	BQL	BQL*	5.5
Vanadium	65.7	37.9	45.4	64.2	46.1	47.5	25
Zinc	159	48.3	25.7	240	87.2	104	10
Miscellaneous Parameters							
Compound	"Leachate" October-09 (mg/L)	"Leachate" April-10 (mg/L)	"Leachate" October-10 (mg/L)	"Leachate" May-11 (mg/L)	"Leachate" October-11 (mg/L)	"Leachate" April-12 (mg/L)	NC SWSL (mg/L)
Nitrate	BQL	BQL	BQL	0.074 J	0.052 J	0.038 J	10
Nitrite	BQL	BQL	0.037 J	0.080 J	0.063 J	0.050 J	1
Sulfate	5	2.5	2.8 J	4.7 J	15	5.3 B	250
Phosphorous	0.96	1.5	2.7	4.3 D	1.8	1.4 D	NE
pH	7.5	7.2	7.8	6.9	6.8	6.8	NE
BOD	1,300	780	510	360	1,000	310	NE
COD	2,800	2,100	1,700	1,900	2,200	1,200	NE

J = Analyte detected; value is between the Method Detection Limit (MDL) and PQL

NE = Not Established

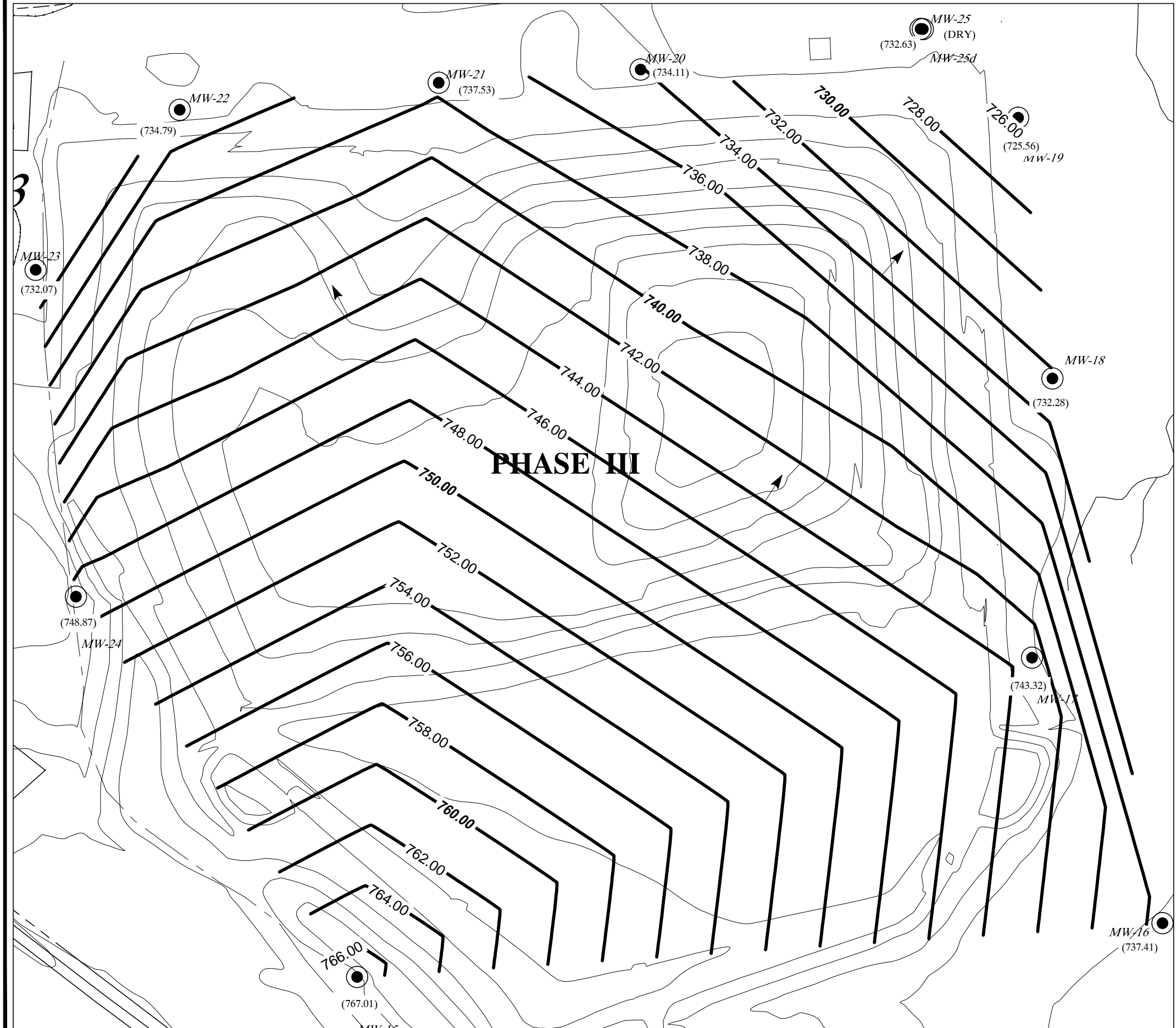
BQL = Analytical results is less than the corresponding PQL/SWSL

*D = Analyte Value Determined with sample dilution

B=The analyte was detected in the associated method blank.

NC SWSL=North Carolina Solid Waste Section Limit

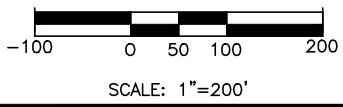
FIGURES



LEGEND

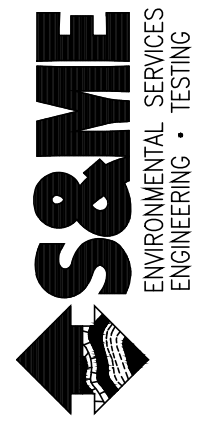
- MONITOR WELL LOCATION
- ESTIMATED GROUNDWATER ELEVATION (MARCH 2000)
- PROPERTY LINE
- CELL LIMITS
- ➔ APROXIMATE GROUNDWATER FLOW DIRECTION
- (737.41) GROUNDWATER ELEVATION AS CALCULATED FOR THE 5/06 EVENT

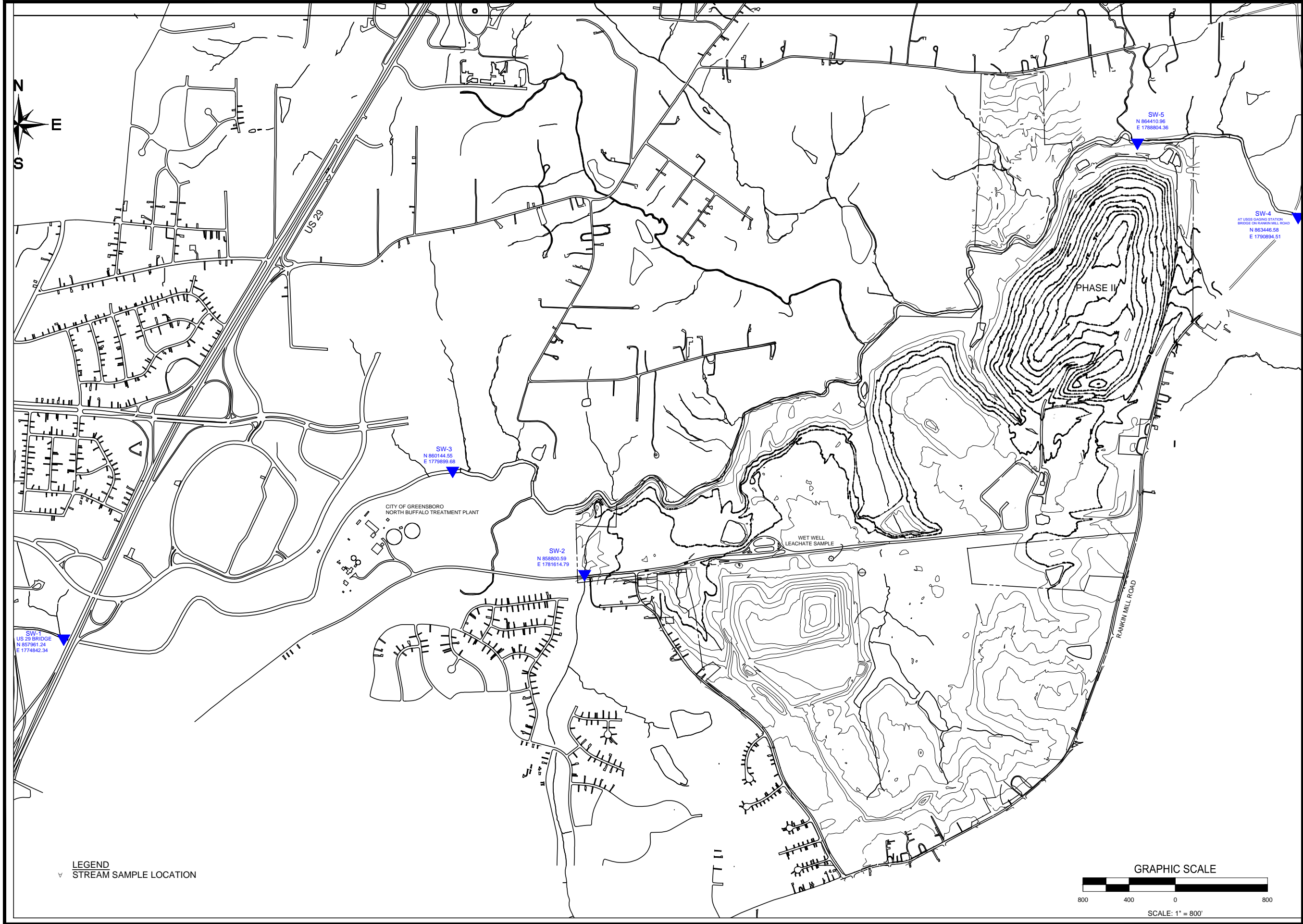
- NOTES:
1. TOPOGRAPHY PROVIDED BY BRADY SURVEYING CO. FROM AERIAL PHOTOGRAPHY DATED NOVEMBER 9, 1994 FACILITY AREA UPDATED MAY 18, 1996.
 2. PLANIMETRIC FEATURES PROVIDED BY GUILFORD COUNTY MAPS DATED 1991.
 3. BOUNDARY SURVEY PROVIDED BY CITY OF GREENSBORO DATED DECEMBER 27, 1994



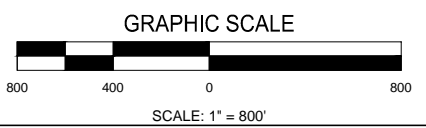
**GROUNDWATER FLOW MAP
PHASE III
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA**

SCALE: AS SHOWN	DRAWN BY: CLD/RDM	CHECKED BY: SC
JOB NO. 1584-98-081	DATE: AUGUST 2012	FIGURE NO. 1

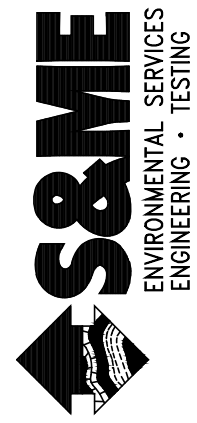




LEGEND
▲ STREAM SAMPLE LOCATION



**STREAM SAMPLE LOCATION
PHASE III
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA**



**ENVIRONMENTAL SERVICES
ENGINEERING • TESTING**

SCALE: AS SHOWN	DRAWN BY: DSB/RDM	CHECKED BY: LE
JOB NO. 1584-98-081	DATE: NOVEMBER 2007	FIGURE NO. 2

APPENDIX I
Field Sampling Data Sheets

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-MW15

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	Thursday, April 19, 2012
Purge Time:	
Sample Date:	Thursday, April 19, 2012
Sample Time:	1040
Weather:	Cloudy
Air Temp:	55 °F

Water Level & Well Data

Depth to water from measuring point:	<u>27.80</u>	<u>feet</u>
Depth to well bottom from measuring point:	<u>60.00</u>	<u>feet</u>
Height of water column:	<u>32.20</u>	<u>feet</u>
Measuring point:	<u>Top of Casing</u>	

Well Purging & Sample Collection

Purge Method	<u>Bladder Pump</u>	
Sample Method	<u>Bladder Pump</u>	
Purge Rate	<u>100</u>	ml/min
Control Settings	On: <u>3</u> sec.	
	Off: <u>27</u> sec.	
	Pressure:	<u>40</u> psi

Purge Time
Start 1000 Stop 1035

Sample Collection Time
Start 1035 Stop 1040

Volume of water in well

2" well:

height: $32.2 \times .163 =$ 5.2486

Volume of water removed 4.0 _____ gallons _____ liters x

Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

1035	4/19/2012	14.24	8.30	0.345	-20	3.31	5.04	30.79
		* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
 Project No.: 1584-98-081
 Source Well: 4112-MW16
 Locked?: Yes: x No:
 Sampled By: Gary Simcox

Purge Date: Thursday, April 19, 2012
 Purge Time:
 Sample Date: Sunday, April 01, 2012
 Sample Time: 925
 Weather: Cloudy
 Air Temp: 55 °F

Water Level & Well Data

Depth to water from measuring point: 20.61 feet
 Depth to well bottom from measuring point: 30.00 feet
 Height of water column: 9.39 feet
 Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method Bladder Pump
 Sample Method Bladder Pump
 Purge Rate 100 ml/min
 Control Settings On: 3.0 sec.
 Off: 27.0 sec.
 Pressure: psi

Purge Time
 Start 845 Stop 920
Sample Collection Time
 Start 92- Stop 925

Volume of water in well

2" well:
 height: 9.39 x .163 = 1.53057

Volume of water removed 4.0 gallons liters x

Was well purged dry Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
845	4/19/2012							
850	4/19/2012	13.23	8.01	0.201	133	4.30	5.46	21.21
855	4/19/2012	13.23	7.55	0.266	56	4.38	4.77	21.30
900	4/19/2012	13.25	7.28	0.271	53	3.77	4.90	21.41
905	4/19/2012	13.21	7.15	0.257	54	3.43	5.20	21.52
910	4/19/2012	13.27	7.04	0.265	53	3.20	4.88	21.69
915	4/19/2012	13.37	6.99	0.271	51	3.47	4.98	21.81
920	4/19/2012	13.43	6.96	0.267	51	3.23	4.86	21.98

Final Readings

920	4/19/2012	13.43	6.96	0.267	51	3.23	4.86	21.80
		* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
 Project No.: 1584-98-081
 Source Well: 4112-MW17
 Locked?: Yes: x No:
 Sampled By: Gary Simcox

Purge Date: Friday, April 20, 2012
 Purge Time:
 Sample Date: Friday, April 20, 2012
 Sample Time: 1035
 Weather: Cloudy
 Air Temp: 65 °F

Water Level & Well Data

Depth to water from measuring point: 11.73 feet
 Depth to well bottom from measuring point: 32.00 feet
 Height of water column: 20.27 feet
 Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method Bladder Pump
 Sample Method Bladder Pump
 Purge Rate 100 ml/min
 Control Settings On: 3.0 sec.
 Off: 27.0 sec.
 Pressure: 20 psi

Purge Time
 Start 955 Stop 1030
 Sample Collection Time
 Start 1030 Stop 1035

Volume of water in well

2" well:
 height: 20.27 x .163 = 3.30401

Volume of water removed 4.0 gallons liters x

Was well purged dry Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
955	4/20/2012							
1000	4/20/2012	16.82	6.94	0.152	188	4.90	7.50	12.23
1005	4/20/2012	16.64	6.79	0.097	207	4.45	5.86	12.32
1010	4/20/2012	16.15	6.73	0.158	222	4.51	5.20	12.47
1015	4/20/2012	17.02	6.73	0.153	228	4.47	4.99	12.50
1020	4/20/2012	17.05	6.72	0.154	232	4.29	5.03	12.61
1025	4/20/2012	16.93	6.72	0.145	236	4.50	4.91	12.66
1030	4/20/2012	16.89	6.73	0.147	238	4.82	4.93	12.73

Final Readings

1030	4/20/2012	16.89	6.73	0.147	238	4.82	4.93	12.73
		* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-MW18

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	Friday, April 20, 2012
Purge Time:	
Sample Date:	Friday, April 20, 2012
Sample Time:	930
Weather:	Cloudy
Air Temp:	65 °F

Water Level & Well Data

Depth to water from measuring point:	<u>10.42</u>	feet
Depth to well bottom from measuring point:	<u>20.00</u>	feet
Height of water column:	<u>9.58</u>	feet
Measuring point:	<u>Top of Casing</u>	

Well Purging & Sample Collection

Purge Method	<u>Bladder Pump</u>	
Sample Method	<u>Bladder Pump</u>	
Purge Rate	<u>100</u>	ml/min
Control Settings	On: <u>3.0</u> sec.	
	Off: <u>27.0</u> sec.	
	Pressure: <u>19</u> psi	

Purge Time
Start 845 Stop 925

Sample Collection Time
Start 925 Stop 930

Volume of water in well

2" well:
height: 9.58 x .163 = 1.56154

Volume of water removed 7.0 gallons liters x

Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

925	4/20/2012	14.75	7.27	0.188	151	3.78	5.95	10.65
		* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-MW19

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	Thursday, April 19, 2012
Purge Time:	
Sample Date:	Thursday, April 19, 2012
Sample Time:	1620
Weather:	Cloudy
Air Temp:	70 °F

Water Level & Well Data

Depth to water from measuring point:	<u>15.14</u>	<u>feet</u>
Depth to well bottom from measuring point:	<u>35.00</u>	<u>feet</u>
Height of water column:	<u>19.86</u>	<u>feet</u>
Measuring point:	<u>Top of Casing</u>	

Well Purging & Sample Collection

Purge Method	<u>Bladder Pump</u>	
Sample Method	<u>Bladder Pump</u>	
Purge Rate	<u>100</u>	ml/min
Control Settings	On: <u>3.0</u> sec.	
	Off: <u>27.0</u> sec.	
	Pressure: <u>26</u> psi	

Purge Time
Start 1535 Stop 1615

Sample Collection Time
Start 1615 Stop 1620

Volume of water in well

2" well:
height: 19.86 x .163 = 3.23718

Volume of water removed 4.0 gallons liters x

Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

1615	4/19/2012	18.32	6.94	0.193	233	4.79	7.95	15.34
		* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-MW20

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	Thursday, April 19, 2012
Purge Time:	
Sample Date:	Thursday, April 19, 2012
Sample Time:	1405
Weather:	Cloudy
Air Temp:	65 °F

Water Level & Well Data

Depth to water from measuring point:	<u>14.76</u>	<u>feet</u>
Depth to well bottom from measuring point:	<u>25.00</u>	<u>feet</u>
Height of water column:	<u>10.24</u>	<u>feet</u>
Measuring point:	<u>Top of Casing</u>	

Well Purging & Sample Collection

Purge Method	<u>Bladder Pump</u>	
Sample Method	<u>Bladder Pump</u>	
Purge Rate	<u>100</u>	ml/min
Control Settings	On: <u>3.0</u> sec.	
	Off: <u>27.0</u> sec.	
	Pressure: <u>24</u> psi	

Purge Time
Start 1330 Stop 1400
Sample Collection Time
Start 1400 Stop 1405

Volume of water in well

2" well:
height: $10.24 \times .163 = 1.66912$

Volume of water removed 4.0 gallons liters x

Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
1330	4/19/2012							
1335	4/19/2012	19.10	7.25	0.560	183	4.12	6.16	15.00
1340	4/19/2012	17.30	7.51	0.680	177	3.75	4.64	15.04
1345	4/19/2012	16.89	7.55	0.709	180	2.44	4.26	15.06
1350	4/19/2012	17.09	7.53	0.705	181	2.20	4.40	15.05
1355	4/19/2012	17.13	7.55	0.693	183	2.14	4.19	15.05
1400	4/19/2012	16.93	7.64	0.683	185	2.35	4.07	15.04
1400	4/19/2012	16.93	7.64	0.683	185	2.35	4.07	15.04
		* C	units	mS/cm	mV	mg/L	NTU	

Final Readings

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-MW21

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	Thursday, April 19, 2012
Purge Time:	
Sample Date:	Thursday, April 19, 2012
Sample Time:	1310
Weather:	Cloudy
Air Temp:	65 °F

Water Level & Well Data

Depth to water from measuring point:	5.79	feet
Depth to well bottom from measuring point:	20.00	feet
Height of water column:	14.21	feet
Measuring point:	Top of Casing	

Well Purging & Sample Collection

Purge Method	<u>Bladder Pump</u>
Sample Method	<u>Bladder Pump</u>
Purge Rate	<u>100</u> ml/min
Control Settings	On: <u>3.0</u> sec.
	Off: <u>27.0</u> sec.
	Pressure: <u>20</u> psi

Purge Time
Start 1235 Stop 1305

Sample Collection Time
Start 1305 Stop 1310

Note: Duplicate III taken at this location. (0800 hrs)

Volume of water in well

2" well:
height: $14.21 \times .163 =$ 2.31623

Volume of water removed 4.0 gallons liters x

Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

1305	4/19/2012	20.47 ° C	6.56 units	0.166 mS/cm	227 mV	3.71 mg/L	4.74 NTU	6.03
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GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
 Project No.: 1584-98-081
 Source Well: 4112-MW22
 Locked?: Yes: x No:
 Sampled By: Gary Simcox

Purge Date: Thursday, April 19, 2012
 Purge Time:
 Sample Date: Thursday, April 19, 2012
 Sample Time: 1215
 Weather: Cloudy
 Air Temp: 55 °F

Water Level & Well Data

Depth to water from measuring point: 9.64 feet
 Depth to well bottom from measuring point: 30.00 feet
 Height of water column: 20.36 feet
 Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method Blader Pump
 Sample Method Blader Pump
 Purge Rate 100 ml/min
 Control Settings On: 3.0 sec.
 Off: 27.0 sec.
 Pressure: 21 psi

Purge Time
 Start 1100 Stop 1210
 Sample Collection Time
 Start 1210 Stop 1215

Volume of water in well

2" well:

height: 20.36 x .163 = 3.31868

Volume of water removed 4.0 gallons liters x

Was well purged dry Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
1100	4/19/2012							
1105	4/19/2012	14.92	7.70	0.405	39	3.29	9.92	10.25
1110	4/19/2012	14.86	7.57	0.421	25	2.50	9.26	10.58
1115	4/19/2012	14.42	7.56	0.413	29	2.06	24.30	10.93
1120	4/19/2012	14.28	7.51	0.391	40	1.94	37.90	11.26
1125	4/19/2012	14.49	7.47	0.369	54	1.84	37.80	11.56
1130	4/19/2012	15.03	7.41	0.36	61	1.56	31.70	11.86
1135	4/19/2012	15.19	7.37	0.359	67	1.41	29.50	12.09
1140	4/19/2012	15.14	7.34	0.349	75	1.89	23.70	12.38
1145	4/19/2012	15.10	7.33	0.354	79	1.68	20.30	12.72
1150	4/19/2012	15.09	7.32	0.354	80	1.53	18.60	12.99
1155	4/19/2012	15.26	7.32	0.349	80	1.40	15.89	13.29
1200	4/19/2012	15.22	7.32	0.351	81	1.33	13.78	13.55
1205	4/19/2012	16.11	7.32	0.345	82	1.77	13.20	13.77
1210	4/19/2012	15.97	7.32	0.350	82	1.73	12.26	13.97

Final Readings

1210	4/19/2012	15.97	7.32	0.350	82	1.73	12.26	13.97
		* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-MW23

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	Wednesday, April 18, 2012
Purge Time:	
Sample Date:	Wednesday, April 18, 2012
Sample Time:	1610
Weather:	Cloudy
Air Temp:	55 °F

Water Level & Well Data

Depth to water from measuring point:	<u>12.18</u>	feet
Depth to well bottom from measuring point:	<u>33.00</u>	feet
Height of water column:	<u>20.82</u>	feet
Measuring point:	<u>Top of Casing</u>	

Well Purging & Sample Collection

Purge Method	<u>Blader Pump</u>	
Sample Method	<u>Blader Pump</u>	
Purge Rate	<u>100</u>	ml/min
Control Settings	On: <u>3.5</u> sec.	
	Off: <u>26.5</u> sec.	
	Pressure: <u>30</u> psi	

Purge Time
Start 1530 Stop 1605

Sample Collection Time
Start 1605 Stop 1610

Volume of water in well

2" well:
height: $20.82 \times .163 =$ 3.39366

Volume of water removed 4.0 _____ gallons _____ liters x

Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

1605	4/18/2012	15.75	8.48	0.462	0	3.03	4.22	14.52
		* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
 Project No.: 1584-98-081
 Source Well: 4112-MW24
 Locked?: Yes: x No:
 Sampled By: Gary Simcox

Purge Date: Wednesday, April 18, 2012
 Purge Time:
 Sample Date: Wednesday, April 18, 2012
 Sample Time: 1510
 Weather: Cloudy
 Air Temp: 55 °F

Water Level & Well Data

Depth to water from measuring point: 3.65 feet
 Depth to well bottom from measuring point: 15.00 feet
 Height of water column: 11.35 feet
 Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method Blader Pump
 Sample Method Blader Pump
 Purge Rate 100 ml/min
 Control Settings On: 3.0 sec.
 Off: 27.0 sec.
 Pressure: psi

Purge Time
 Start 1430 Stop 1505
Sample Collection Time
 Start 1505 Stop 1510

Volume of water in well

2" well:
 height: 11.35 x .163 = 1.85005

Volume of water removed 4.0 gallons liters x

Was well purged dry Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
1430	4/18/2012							
1435	4/18/2012	15.03	7.76	0.821	95	4.38	6.71	4.48
1440	4/18/2012	15.26	7.77	0.918	88	3.78	5.19	4.68
1445	4/18/2012	15.27	7.73	0.917	88	2.86	5.23	4.82
1450	4/18/2012	15.22	7.68	0.928	84	2.18	4.41	5.03
1455	4/18/2012	14.99	7.68	0.855	85	1.97	4.15	5.26
1500	4/18/2012	14.80	7.71	0.918	87	2.04	3.54	5.51
1505	4/18/2012	14.70	7.75	0.919	88	2.05	4.37	5.63

Final Readings

1505	4/18/2012	14.70	7.75	0.919	88	2.05	4.37	5.63
		* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-MW25

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	Thursday, April 19, 2012
Purge Time:	
Sample Date:	Thursday, April 19, 2012
Sample Time:	not sampled
Weather:	Cloudy
Air Temp:	65 °F

Water Level & Well Data

Depth to water from measuring point:	_____	feet
Depth to well bottom from measuring point:	17.00	feet
Height of water column:	17.00	feet
Measuring point:	Top of Casing	

Well Purging & Sample Collection

Purge Method	Bladder Pump	
Sample Method	Bladder Pump	
Purge Rate	100	ml/min
Control Settings	On: 3.0 sec.	
	Off: 27.0 sec.	
	Pressure: psi	

Purge Time
Start _____ Stop _____

Sample Collection Time
Start _____ Stop _____

Notes: Water level w/out pump is 14.42. The bottom of the pump is set at approx. 14' below TOC.

Volume of water in well

2" well:

height:	$17 \times .163 =$	<u>2.771</u>
---------	--------------------	--------------

Volume of water removed 1.0 _____ gallons _____ liters x

Was well purged dry Yes x No

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

		* C	units	mS/cm	mV	mg/L	NTU	

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill
 Project No.: 1584-98-081
 Source Well: 4112-MW25b
 Locked?: Yes: x No:
 Sampled By: Gary Simcox

Purge Date: Thursday, April 19, 2012
 Purge Time:
 Sample Date: Thursday, April 19, 2012
 Sample Time: 1515
 Weather: Cloudy
 Air Temp: 65 °F

Water Level & Well Data

Depth to water from measuring point: 13.56 feet
 Depth to well bottom from measuring point: 33.00 feet
 Height of water column: 19.44 feet
 Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method Bladder Pump
 Sample Method Bladder Pump
 Purge Rate 100 ml/min
 Control Settings On: 3.0 sec.
 Off: 27.0 sec.
 Pressure: 28 psi

Purge Time
 Start 1435 Stop 1510
Sample Collection Time
 Start 1510 Stop 1515

Volume of water in well

2" well:
 height: 19.44 x .163 = 3.16872

Volume of water removed 4.0 gallons liters x

Was well purged dry Yes No x

Field Analyses

*Stabilization Parameters

Time	Date	Temp	pH	Conductivity	*ORP	*D.O.	*Turbidity	DTW
1435	4/19/12							
1440	4/19/12	18.08	7.69	0.128	173	5.93	4.41	13.87
1445	4/19/12	18.05	7.44	0.114	185	5.49	4.28	13.83
1450	4/19/12	17.72	7.38	0.114	188	5.25	4.59	13.84
1455	4/19/12	17.61	7.41	0.113	192	5.12	4.18	13.84
1500	4/19/12	17.62	7.28	0.113	192	4.80	4.28	13.85
1505	4/19/12	17.66	7.31	0.114	199	4.69	4.11	13.81
1510	4/19/12	17.58	7.21	0.113	201	5.01	4.61	13.84

Final Readings

1510	4/19/12	17.58	7.21	0.113	201	5.01	4.61	13.84
		* C	units	mS/cm	mV	mg/L	NTU	

Blank

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-SW1

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	
Purge Time:	
Sample Date:	Friday, October 07, 2011
Sample Time:	1015
Weather:	Clear
Air Temp:	70 °F

Water Level & Well Data

Depth to water from measuring point: _____ feet

Depth to well bottom from measuring point: _____ feet

Height of water column: 0.00 _____ feet

Measuring point: _____

Well Purging & Sample Collection

Purge Method _____

Sample Method _____

Purge Rate _____ ml/min

Control Settings On: _____ sec.

 Off: _____ sec.

 Pressure: _____ psi

Purge Time
Start _____ Stop _____

Sample Collection Time
Start _____ Stop _____

Volume of water in well

2" well:

height: $0 \times .163 =$ 0

Volume of water removed _____ gallons _____ liters _____

Was well purged dry Yes _____ No _____

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

1015	10/7/2011	16.16	7.21	309.000			
		* C	units	u S			

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-SW2

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	
Purge Time:	
Sample Date:	Friday, October 07, 2011
Sample Time:	855
Weather:	Clear
Air Temp:	70 °F

Water Level & Well Data

Depth to water from measuring point: _____ feet

Depth to well bottom from measuring point: _____ feet

Height of water column: 0.00 _____ feet

Measuring point: _____

Well Purging & Sample Collection

Purge Method _____

Sample Method _____

Purge Rate _____ ml/min

Control Settings On: _____ sec.

 Off: _____ sec.

 Pressure: _____ psi

Purge Time
Start _____ Stop _____

Sample Collection Time
Start _____ Stop _____

Volume of water in well

2" well:

height: $0 \times .163 =$ 0

Volume of water removed _____ gallons _____ liters **x**

Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

855	10/7/2011	13.10	7.26	218.000				
		* C	units	u S				

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-SW3

Locked?: Yes: _____ No: _____

Sampled By: Gary Simcox

Purge Date:	
Purge Time:	
Sample Date:	Friday, October 07, 2011
Sample Time:	940
Weather:	Clear
Air Temp:	70 °F

Water Level & Well Data

Depth to water from measuring point: _____ feet

Depth to well bottom from measuring point: _____ feet

Height of water column: 0.00 feet

Measuring point: _____

Well Purging & Sample Collection

Purge Method _____

Sample Method _____

Purge Rate _____ ml/min

Control Settings On: _____ sec.

 Off: _____ sec.

 Pressure: _____ psi

Purge Time
Start _____ Stop _____

Sample Collection Time
Start _____ Stop _____

Volume of water in well

2" well:

height: 0 x .163 = 0

Volume of water removed _____ gallons _____ liters _____

Was well purged dry Yes _____ No x

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

940	10/7/2011	19.10	6.90	529.000				
		* C	units	u S				

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-SW4

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	
Purge Time:	
Sample Date:	Friday, October 07, 2011
Sample Time:	1050
Weather:	Clear
Air Temp:	70 °F

Water Level & Well Data

Depth to water from measuring point: _____ feet

Depth to well bottom from measuring point: _____ feet

Height of water column: 0.00 _____ feet

Measuring point: _____

Well Purging & Sample Collection

Purge Method _____

Sample Method _____

Purge Rate _____ ml/min

Control Settings On: _____ sec.

 Off: _____ sec.

 Pressure: _____ psi

Purge Time
Start _____ Stop _____

Sample Collection Time
Start _____ Stop _____

Volume of water in well

2" well:

height: 0 x .163 = 0

Volume of water removed _____ gallons _____ liters _____

Was well purged dry	Yes	No

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

1050	10/7/2011	17.80	7.22	462.000				
		* C	units	u S				

GROUNDWATER SAMPLING FIELD DATA

Location: White Street Landfill

Project No.: 1584-98-081

Source Well: 4112-SW5

Locked?: Yes: x No:

Sampled By: Gary Simcox

Purge Date:	
Purge Time:	
Sample Date:	Friday, October 07, 2011
Sample Time:	1310
Weather:	Clear
Air Temp:	70 °F

Water Level & Well Data

Depth to water from measuring point: _____ feet

Depth to well bottom from measuring point: _____ feet

Height of water column: 0.00 feet

Measuring point: _____

Well Purging & Sample Collection

Purge Method _____

Sample Method _____

Purge Rate _____ gpm

Control Settings On: _____ sec.

 Off: _____ sec.

 Pressure: _____ psi

Purge Time
Start _____ Stop _____

Sample Collection Time
Start _____ Stop _____

Volume of water in well

2" well:

height: 0 x .163 = 0

Volume of water removed	0.0	gallons	x	liters
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Was well purged dry Yes _____ No **x** _____

Field Analyses

*Stabilization Parameters

[illegible]

Final Readings

	10/7/2011	18.67	7.70	0.446				
		* C	units	mS/cm				

APPENDIX II
Laboratory Analytical Report

Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090

FAX: 919.467.3515



Thursday, May 3, 2012

S&ME, Inc. (SM004)

Attn: Edmund Henriques

3718 Old Battleground Rd.

Greensboro, NC 27410

Phase III mws

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: White Street Landfill AppI (Phase III)

ENCO Workorder(s): C204204

Dear Edmund Henriques,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Monday, April 23, 2012.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

SAMPLE SUMMARY/LABORATORY CHRONICLE

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	10/16/12	04/25/12 08:12	4/26/2012 13:06
EPA 6020A	10/16/12	04/25/12 08:15	4/26/2012 12:03
EPA 8260B	05/03/12	05/01/12 10:17	5/2/2012 06:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	10/16/12	04/25/12 08:12	4/26/2012 13:08
EPA 6020A	10/16/12	04/25/12 08:15	4/26/2012 12:22
EPA 8260B	05/03/12	05/01/12 10:17	5/2/2012 06:34

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	10/17/12	04/25/12 08:12	4/26/2012 13:10
EPA 6020A	10/17/12	04/25/12 08:15	4/26/2012 12:25
EPA 8260B	05/04/12	05/01/12 10:17	5/2/2012 07:04

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	10/17/12	04/25/12 08:12	4/26/2012 13:12
EPA 6020A	10/17/12	04/25/12 08:15	4/26/2012 12:29
EPA 8260B	05/04/12	05/01/12 10:17	5/2/2012 07:34

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	10/16/12	04/25/12 08:12	4/26/2012 13:15
EPA 6020A	10/16/12	04/25/12 08:15	4/26/2012 12:42
EPA 8260B	05/03/12	05/01/12 10:17	5/2/2012 08:03

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	10/16/12	04/25/12 08:12	4/26/2012 13:17
EPA 6020A	10/16/12	04/25/12 08:15	4/26/2012 12:46
EPA 8260B	05/03/12	05/01/12 10:17	5/2/2012 08:32

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	10/16/12	04/25/12 08:12	4/26/2012 13:19
EPA 6020A	10/16/12	04/25/12 08:15	4/26/2012 12:50
EPA 8260B	05/03/12	05/01/12 10:17	5/2/2012 09:02

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	10/16/12	04/25/12 08:12	4/26/2012 13:21
EPA 6020A	10/16/12	04/25/12 08:15	4/26/2012 12:53
EPA 8260B	05/03/12	05/01/12 10:17	5/2/2012 09:32

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	10/15/12	04/25/12 08:12	4/26/2012 13:23
EPA 6020A	10/15/12	04/25/12 08:15	4/26/2012 12:57
EPA 8260B	05/02/12	04/27/12 10:54	5/1/2012 16:18

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	10/15/12	04/25/12 08:12	4/26/2012 13:26
EPA 6020A	10/15/12	04/25/12 08:15	4/26/2012 13:01
EPA 8260B	05/02/12	04/27/12 10:54	5/1/2012 16:47

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	10/16/12	04/25/12 08:12	4/26/2012 13:34
EPA 6020A	10/16/12	04/25/12 08:15	4/26/2012 13:05
EPA 8260B	05/03/12	05/01/12 10:17	5/2/2012 10:01

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	10/16/12	04/25/12 08:12	4/26/2012 13:36
EPA 6020A	10/16/12	04/25/12 08:15	4/26/2012 13:08
EPA 8260B	05/03/12	05/02/12 10:35	5/2/2012 14:56

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	05/02/12	04/27/12 10:54	5/1/2012 17:16

NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.881	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	27.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Lead - Total	1.94	J	1	1.90	10.0	10	ug/L	EPA 6010C	

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.500	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	114		1	1.00	10.0	100	ug/L	EPA 6010C	
Cobalt - Total	1.96	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	2.25	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	2.86	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.22	J	1	1.80	10.0	50	ug/L	EPA 6010C	

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.239	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	53.8	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	1.25	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	1.79	J	1	1.40	10.0	25	ug/L	EPA 6010C	

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	24.2	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cobalt - Total	1.20	J	1	1.10	10.0	10	ug/L	EPA 6010C	

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.254	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	25.0	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	1.14	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	5.48	J	1	1.40	10.0	25	ug/L	EPA 6010C	

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	70.3	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	1.07	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.79	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	5.56	J	1	1.40	10.0	25	ug/L	EPA 6010C	

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	36.1	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Copper - Total	5.29	J	1	1.60	10.0	10	ug/L	EPA 6010C	

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	136		1	1.00	10.0	100	ug/L	EPA 6010C	

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	56.9	J	1	1.00	10.0	100	ug/L	EPA 6010C	

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	393		1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	1.10	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	5.33	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	13.1		1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	3.50	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.75	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	2.87	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	14.8		1	3.80	10.0	10	ug/L	EPA 6010C	

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	14.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	3.05	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Lead - Total	2.17	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	3.43	J	1	1.40	10.0	25	ug/L	EPA 6010C	

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	36.5	J	1	1.00	10.0	100	ug/L	EPA 6010C	

ANALYTICAL RESULTS

Description: 4112-MW15

Lab Sample ID: C204204-01

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 10:40

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/02/12 06:05	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/02/12 06:05	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/02/12 06:05	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 06:05	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/02/12 06:05	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/02/12 06:05	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/02/12 06:05	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/02/12 06:05	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/02/12 06:05	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/02/12 06:05	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/02/12 06:05	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/02/12 06:05	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/02/12 06:05	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/02/12 06:05	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/02/12 06:05	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 06:05	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/02/12 06:05	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/02/12 06:05	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/02/12 06:05	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 06:05	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/02/12 06:05	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/02/12 06:05	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 06:05	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/02/12 06:05	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 06:05	JKG	

Description: 4112-MW15

Lab Sample ID: C204204-01

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 10:40

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/02/12 06:05	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/02/12 06:05	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/02/12 06:05	JKG	
<hr/>											
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	46	1	50.0	93 %	51-122	2E01012	EPA 8260B	05/02/12 06:05	JKG		
Dibromofluoromethane	45	1	50.0	91 %	68-117	2E01012	EPA 8260B	05/02/12 06:05	JKG		
Toluene-d8	47	1	50.0	95 %	67-127	2E01012	EPA 8260B	05/02/12 06:05	JKG		

Description: 4112-MW15

Lab Sample ID: C204204-01

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 10:40

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.881	J	ug/L	1	0.220	2.00	6	EPA 6020A	04/26/12 12:03	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	04/26/12 13:06	JDH	
Barium [7440-39-3] ^	27.6	J	ug/L	1	1.00	10.0	100	EPA 6010C	04/26/12 13:06	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	04/26/12 13:06	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	04/26/12 13:06	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	04/26/12 13:06	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	04/26/12 13:06	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	04/26/12 13:06	JDH	
Lead [7439-92-1] ^	1.94	J	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:06	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	04/26/12 13:06	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	04/26/12 12:03	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:06	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	04/26/12 12:03	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	04/26/12 13:06	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	04/26/12 13:06	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

Description: 4112-MW16

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-02

Sampled: 04/19/12 09:25

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/02/12 06:34	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/02/12 06:34	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/02/12 06:34	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 06:34	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/02/12 06:34	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/02/12 06:34	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/02/12 06:34	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/02/12 06:34	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/02/12 06:34	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/02/12 06:34	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/02/12 06:34	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/02/12 06:34	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/02/12 06:34	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/02/12 06:34	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/02/12 06:34	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 06:34	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/02/12 06:34	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/02/12 06:34	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/02/12 06:34	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 06:34	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/02/12 06:34	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/02/12 06:34	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 06:34	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/02/12 06:34	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/02/12 06:34	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/02/12 06:34	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/02/12 06:34	JKG	

Description: 4112-MW16

Lab Sample ID: C204204-02

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 09:25

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte</u> [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/02/12 06:34	JKG	
<hr/>											
<u>Surrogates</u>	<u>Results</u>	<u>DF</u>	<u>Spike Lvl</u>	<u>% Rec</u>	<u>% Rec Limits</u>	<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>	
4-Bromofluorobenzene	46	1	50.0	92 %	51-122	2E01012	EPA 8260B	05/02/12 06:34	JKG		
Dibromofluoromethane	45	1	50.0	89 %	68-117	2E01012	EPA 8260B	05/02/12 06:34	JKG		
Toluene-d8	47	1	50.0	93 %	67-127	2E01012	EPA 8260B	05/02/12 06:34	JKG		

Description: 4112-MW16

Lab Sample ID: C204204-02

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 09:25

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.500	J	ug/L	1	0.220	2.00	6	EPA 6020A	04/26/12 12:22	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	04/26/12 13:08	JDH	
Barium [7440-39-3] ^	114		ug/L	1	1.00	10.0	100	EPA 6010C	04/26/12 13:08	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	04/26/12 13:08	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	04/26/12 13:08	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	04/26/12 13:08	JDH	
Cobalt [7440-48-4] ^	1.96	J	ug/L	1	1.10	10.0	10	EPA 6010C	04/26/12 13:08	JDH	
Copper [7440-50-8] ^	2.25	J	ug/L	1	1.60	10.0	10	EPA 6010C	04/26/12 13:08	JDH	
Lead [7439-92-1] ^	2.86	J	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:08	JDH	
Nickel [7440-02-0] ^	2.22	J	ug/L	1	1.80	10.0	50	EPA 6010C	04/26/12 13:08	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	04/26/12 12:22	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:08	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	04/26/12 12:22	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	04/26/12 13:08	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	04/26/12 13:08	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

Description: 4112-MW17

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-03

Sampled: 04/20/12 10:35

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/02/12 07:04	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/02/12 07:04	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/02/12 07:04	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 07:04	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/02/12 07:04	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/02/12 07:04	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/02/12 07:04	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/02/12 07:04	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/02/12 07:04	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/02/12 07:04	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/02/12 07:04	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/02/12 07:04	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/02/12 07:04	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/02/12 07:04	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/02/12 07:04	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 07:04	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/02/12 07:04	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/02/12 07:04	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/02/12 07:04	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 07:04	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/02/12 07:04	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/02/12 07:04	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 07:04	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/02/12 07:04	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/02/12 07:04	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/02/12 07:04	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/02/12 07:04	JKG	

Description: 4112-MW17

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-03

Sampled: 04/20/12 10:35

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/02/12 07:04	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	47	1	50.0	95 %	51-122	2E01012	EPA 8260B	05/02/12 07:04	JKG		
Dibromofluoromethane	47	1	50.0	94 %	68-117	2E01012	EPA 8260B	05/02/12 07:04	JKG		
Toluene-d8	48	1	50.0	96 %	67-127	2E01012	EPA 8260B	05/02/12 07:04	JKG		

Description: 4112-MW17

Lab Sample ID: C204204-03

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/20/12 10:35

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.239	J	ug/L	1	0.220	2.00	6	EPA 6020A	04/26/12 12:25	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	04/26/12 13:10	JDH	
Barium [7440-39-3] ^	53.8	J	ug/L	1	1.00	10.0	100	EPA 6010C	04/26/12 13:10	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	04/26/12 13:10	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	04/26/12 13:10	JDH	
Chromium [7440-47-3] ^	1.25	J	ug/L	1	1.00	10.0	10	EPA 6010C	04/26/12 13:10	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	04/26/12 13:10	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	04/26/12 13:10	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:10	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	04/26/12 13:10	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	04/26/12 12:25	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:10	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	04/26/12 12:25	VLO	
Vanadium [7440-62-2] ^	1.79	J	ug/L	1	1.40	10.0	25	EPA 6010C	04/26/12 13:10	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	04/26/12 13:10	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

Description: 4112-MW18

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-04

Sampled: 04/20/12 09:30

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/02/12 07:34	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/02/12 07:34	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/02/12 07:34	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 07:34	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/02/12 07:34	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/02/12 07:34	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/02/12 07:34	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/02/12 07:34	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/02/12 07:34	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/02/12 07:34	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/02/12 07:34	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/02/12 07:34	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/02/12 07:34	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/02/12 07:34	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/02/12 07:34	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 07:34	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/02/12 07:34	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/02/12 07:34	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/02/12 07:34	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 07:34	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/02/12 07:34	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/02/12 07:34	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 07:34	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/02/12 07:34	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/02/12 07:34	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/02/12 07:34	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/02/12 07:34	JKG	

Description: 4112-MW18

Lab Sample ID: C204204-04

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/20/12 09:30

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/02/12 07:34	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	46	1	50.0	92 %	51-122	2E01012	EPA 8260B	05/02/12 07:34	JKG		
Dibromofluoromethane	47	1	50.0	94 %	68-117	2E01012	EPA 8260B	05/02/12 07:34	JKG		
Toluene-d8	47	1	50.0	94 %	67-127	2E01012	EPA 8260B	05/02/12 07:34	JKG		

Description: 4112-MW18

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-04

Sampled: 04/20/12 09:30

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	04/26/12 12:29	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	04/26/12 13:12	JDH	
Barium [7440-39-3] ^	24.2	J	ug/L	1	1.00	10.0	100	EPA 6010C	04/26/12 13:12	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	04/26/12 13:12	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	04/26/12 13:12	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	04/26/12 13:12	JDH	
Cobalt [7440-48-4] ^	1.20	J	ug/L	1	1.10	10.0	10	EPA 6010C	04/26/12 13:12	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	04/26/12 13:12	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:12	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	04/26/12 13:12	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	04/26/12 12:29	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:12	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	04/26/12 12:29	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	04/26/12 13:12	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	04/26/12 13:12	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

Description: 4112-MW19

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-05

Sampled: 04/19/12 16:20

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/02/12 08:03	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/02/12 08:03	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/02/12 08:03	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 08:03	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/02/12 08:03	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/02/12 08:03	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/02/12 08:03	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/02/12 08:03	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/02/12 08:03	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/02/12 08:03	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/02/12 08:03	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/02/12 08:03	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/02/12 08:03	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/02/12 08:03	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/02/12 08:03	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 08:03	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/02/12 08:03	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/02/12 08:03	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/02/12 08:03	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 08:03	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/02/12 08:03	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/02/12 08:03	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 08:03	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/02/12 08:03	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/02/12 08:03	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/02/12 08:03	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/02/12 08:03	JKG	



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Description: 4112-MW19

Lab Sample ID: C204204-05

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 16:20

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/02/12 08:03	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	48	1	50.0	96 %	51-122	2E01012	EPA 8260B	05/02/12 08:03	JKG		
Dibromofluoromethane	46	1	50.0	93 %	68-117	2E01012	EPA 8260B	05/02/12 08:03	JKG		
Toluene-d8	49	1	50.0	97 %	67-127	2E01012	EPA 8260B	05/02/12 08:03	JKG		

Description: 4112-MW19

Lab Sample ID: C204204-05

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 16:20

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.254	J	ug/L	1	0.220	2.00	6	EPA 6020A	04/26/12 12:42	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	04/26/12 13:15	JDH	
Barium [7440-39-3] ^	25.0	J	ug/L	1	1.00	10.0	100	EPA 6010C	04/26/12 13:15	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	04/26/12 13:15	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	04/26/12 13:15	JDH	
Chromium [7440-47-3] ^	1.14	J	ug/L	1	1.00	10.0	10	EPA 6010C	04/26/12 13:15	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	04/26/12 13:15	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	04/26/12 13:15	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:15	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	04/26/12 13:15	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	04/26/12 12:42	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:15	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	04/26/12 12:42	VLO	
Vanadium [7440-62-2] ^	5.48	J	ug/L	1	1.40	10.0	25	EPA 6010C	04/26/12 13:15	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	04/26/12 13:15	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

Description: 4112-MW20

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-06

Sampled: 04/19/12 14:05

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/02/12 08:32	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/02/12 08:32	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/02/12 08:32	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 08:32	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/02/12 08:32	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/02/12 08:32	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/02/12 08:32	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/02/12 08:32	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/02/12 08:32	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/02/12 08:32	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/02/12 08:32	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/02/12 08:32	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/02/12 08:32	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/02/12 08:32	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/02/12 08:32	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 08:32	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/02/12 08:32	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/02/12 08:32	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/02/12 08:32	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 08:32	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/02/12 08:32	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/02/12 08:32	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 08:32	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/02/12 08:32	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/02/12 08:32	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/02/12 08:32	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/02/12 08:32	JKG	

Description: 4112-MW20

Lab Sample ID: C204204-06

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 14:05

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/02/12 08:32	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	47	1	50.0	93 %	51-122	2E01012	EPA 8260B	05/02/12 08:32	JKG		
Dibromofluoromethane	47	1	50.0	94 %	68-117	2E01012	EPA 8260B	05/02/12 08:32	JKG		
Toluene-d8	47	1	50.0	95 %	67-127	2E01012	EPA 8260B	05/02/12 08:32	JKG		

Description: 4112-MW20

Lab Sample ID: C204204-06

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 14:05

Work Order: C204204

Project: White Street Landfill Appl (Phase III)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	04/26/12 12:46	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	04/26/12 13:17	JDH	
Barium [7440-39-3] ^	70.3	J	ug/L	1	1.00	10.0	100	EPA 6010C	04/26/12 13:17	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	04/26/12 13:17	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	04/26/12 13:17	JDH	
Chromium [7440-47-3] ^	1.07	J	ug/L	1	1.00	10.0	10	EPA 6010C	04/26/12 13:17	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	04/26/12 13:17	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	04/26/12 13:17	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:17	JDH	
Nickel [7440-02-0] ^	2.79	J	ug/L	1	1.80	10.0	50	EPA 6010C	04/26/12 13:17	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	04/26/12 12:46	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:17	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	04/26/12 12:46	VLO	
Vanadium [7440-62-2] ^	5.56	J	ug/L	1	1.40	10.0	25	EPA 6010C	04/26/12 13:17	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	04/26/12 13:17	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

Description: 4112-MW21

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-07

Sampled: 04/19/12 13:10

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/02/12 09:02	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/02/12 09:02	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/02/12 09:02	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 09:02	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/02/12 09:02	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/02/12 09:02	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/02/12 09:02	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/02/12 09:02	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/02/12 09:02	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/02/12 09:02	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/02/12 09:02	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/02/12 09:02	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/02/12 09:02	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/02/12 09:02	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/02/12 09:02	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 09:02	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/02/12 09:02	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/02/12 09:02	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/02/12 09:02	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 09:02	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/02/12 09:02	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/02/12 09:02	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 09:02	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/02/12 09:02	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/02/12 09:02	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/02/12 09:02	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/02/12 09:02	JKG	

Description: 4112-MW21

Lab Sample ID: C204204-07

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 13:10

Work Order: C204204

Project: White Street Landfill Appl (Phase III)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/02/12 09:02	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	46	1	50.0	93 %	51-122	2E01012	EPA 8260B	05/02/12 09:02	JKG		
Dibromofluoromethane	46	1	50.0	92 %	68-117	2E01012	EPA 8260B	05/02/12 09:02	JKG		
Toluene-d8	48	1	50.0	95 %	67-127	2E01012	EPA 8260B	05/02/12 09:02	JKG		

Description: 4112-MW21

Lab Sample ID: C204204-07

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 13:10

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	04/26/12 12:50	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	04/26/12 13:19	JDH	
Barium [7440-39-3] ^	36.1	J	ug/L	1	1.00	10.0	100	EPA 6010C	04/26/12 13:19	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	04/26/12 13:19	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	04/26/12 13:19	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	04/26/12 13:19	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	04/26/12 13:19	JDH	
Copper [7440-50-8] ^	5.29	J	ug/L	1	1.60	10.0	10	EPA 6010C	04/26/12 13:19	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:19	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	04/26/12 13:19	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	04/26/12 12:50	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:19	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	04/26/12 12:50	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	04/26/12 13:19	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	04/26/12 13:19	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

Description: 4112-MW22

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-08

Sampled: 04/19/12 12:15

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/02/12 09:32	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/02/12 09:32	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/02/12 09:32	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 09:32	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/02/12 09:32	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/02/12 09:32	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/02/12 09:32	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/02/12 09:32	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/02/12 09:32	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/02/12 09:32	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/02/12 09:32	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/02/12 09:32	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/02/12 09:32	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/02/12 09:32	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/02/12 09:32	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 09:32	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/02/12 09:32	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/02/12 09:32	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/02/12 09:32	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 09:32	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/02/12 09:32	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/02/12 09:32	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 09:32	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/02/12 09:32	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/02/12 09:32	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/02/12 09:32	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/02/12 09:32	JKG	

Description: 4112-MW22

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-08

Sampled: 04/19/12 12:15

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/02/12 09:32	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	46	1	50.0	93 %	51-122	2E01012	EPA 8260B	05/02/12 09:32	JKG		
Dibromofluoromethane	47	1	50.0	94 %	68-117	2E01012	EPA 8260B	05/02/12 09:32	JKG		
Toluene-d8	47	1	50.0	94 %	67-127	2E01012	EPA 8260B	05/02/12 09:32	JKG		

Description: 4112-MW22

Lab Sample ID: C204204-08

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 12:15

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	04/26/12 12:53	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	04/26/12 13:21	JDH	
Barium [7440-39-3] ^	136		ug/L	1	1.00	10.0	100	EPA 6010C	04/26/12 13:21	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	04/26/12 13:21	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	04/26/12 13:21	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	04/26/12 13:21	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	04/26/12 13:21	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	04/26/12 13:21	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:21	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	04/26/12 13:21	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	04/26/12 12:53	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:21	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	04/26/12 12:53	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	04/26/12 13:21	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	04/26/12 13:21	JDH	

Description: 4112-MW23

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-09

Sampled: 04/18/12 16:10

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/01/12 16:18	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/01/12 16:18	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/01/12 16:18	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/01/12 16:18	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/01/12 16:18	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/01/12 16:18	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/01/12 16:18	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/01/12 16:18	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/01/12 16:18	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/01/12 16:18	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/01/12 16:18	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/01/12 16:18	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/01/12 16:18	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/01/12 16:18	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/01/12 16:18	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/01/12 16:18	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/01/12 16:18	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/01/12 16:18	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/01/12 16:18	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/01/12 16:18	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/01/12 16:18	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/01/12 16:18	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/01/12 16:18	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/01/12 16:18	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/01/12 16:18	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/01/12 16:18	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/01/12 16:18	JKG	

Description: 4112-MW23

Matrix: Ground Water

Project: White Street Landfill Appl (Phase III)

Lab Sample ID: C204204-09

Sampled: 04/18/12 16:10

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/01/12 16:18	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	50	1	50.0	100 %	51-122	2D27010	EPA 8260B	05/01/12 16:18	JKG		
Dibromofluoromethane	51	1	50.0	102 %	68-117	2D27010	EPA 8260B	05/01/12 16:18	JKG		
Toluene-d8	49	1	50.0	99 %	67-127	2D27010	EPA 8260B	05/01/12 16:18	JKG		

Description: 4112-MW23

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-09

Sampled: 04/18/12 16:10

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	04/26/12 12:57	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	04/26/12 13:23	JDH	
Barium [7440-39-3] ^	56.9	J	ug/L	1	1.00	10.0	100	EPA 6010C	04/26/12 13:23	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	04/26/12 13:23	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	04/26/12 13:23	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	04/26/12 13:23	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	04/26/12 13:23	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	04/26/12 13:23	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:23	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	04/26/12 13:23	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	04/26/12 12:57	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:23	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	04/26/12 12:57	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	04/26/12 13:23	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	04/26/12 13:23	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

Description: 4112-MW24

Lab Sample ID: C204204-10

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/18/12 15:10

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/01/12 16:47	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/01/12 16:47	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/01/12 16:47	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/01/12 16:47	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/01/12 16:47	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/01/12 16:47	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/01/12 16:47	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/01/12 16:47	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/01/12 16:47	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/01/12 16:47	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/01/12 16:47	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/01/12 16:47	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/01/12 16:47	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/01/12 16:47	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/01/12 16:47	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/01/12 16:47	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/01/12 16:47	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/01/12 16:47	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/01/12 16:47	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/01/12 16:47	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/01/12 16:47	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/01/12 16:47	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/01/12 16:47	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/01/12 16:47	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/01/12 16:47	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/01/12 16:47	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/01/12 16:47	JKG	

Description: 4112-MW24

Lab Sample ID: C204204-10

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/18/12 15:10

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte</u> [<u>CAS Number</u>]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/01/12 16:47	JKG	
<u>Surrogates</u>	<u>Results</u>	<u>DF</u>	<u>Spike Lvl</u>	<u>% Rec</u>	<u>% Rec Limits</u>	<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>	
4-Bromofluorobenzene	50	1	50.0	100 %	51-122	2D27010	EPA 8260B	05/01/12 16:47	JKG		
Dibromofluoromethane	51	1	50.0	102 %	68-117	2D27010	EPA 8260B	05/01/12 16:47	JKG		
Toluene-d8	50	1	50.0	100 %	67-127	2D27010	EPA 8260B	05/01/12 16:47	JKG		

Description: 4112-MW24

Lab Sample ID: C204204-10

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/18/12 15:10

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	04/26/12 13:01	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	04/26/12 13:26	JDH	
Barium [7440-39-3] ^	393		ug/L	1	1.00	10.0	100	EPA 6010C	04/26/12 13:26	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	04/26/12 13:26	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	04/26/12 13:26	JDH	
Chromium [7440-47-3] ^	1.10	J	ug/L	1	1.00	10.0	10	EPA 6010C	04/26/12 13:26	JDH	
Cobalt [7440-48-4] ^	5.33	J	ug/L	1	1.10	10.0	10	EPA 6010C	04/26/12 13:26	JDH	
Copper [7440-50-8] ^	13.1		ug/L	1	1.60	10.0	10	EPA 6010C	04/26/12 13:26	JDH	
Lead [7439-92-1] ^	3.50	J	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:26	JDH	
Nickel [7440-02-0] ^	2.75	J	ug/L	1	1.80	10.0	50	EPA 6010C	04/26/12 13:26	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	04/26/12 13:01	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:26	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	04/26/12 13:01	VLO	
Vanadium [7440-62-2] ^	2.87	J	ug/L	1	1.40	10.0	25	EPA 6010C	04/26/12 13:26	JDH	
Zinc [7440-66-6] ^	14.8		ug/L	1	3.80	10.0	10	EPA 6010C	04/26/12 13:26	JDH	

Description: 4112-MW25B

Lab Sample ID: C204204-11

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 15:15

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/02/12 10:01	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/02/12 10:01	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/02/12 10:01	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 10:01	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/02/12 10:01	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/02/12 10:01	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/02/12 10:01	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/02/12 10:01	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/02/12 10:01	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/02/12 10:01	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/02/12 10:01	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/02/12 10:01	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/02/12 10:01	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/02/12 10:01	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/02/12 10:01	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 10:01	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/02/12 10:01	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/02/12 10:01	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/02/12 10:01	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 10:01	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/02/12 10:01	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/02/12 10:01	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 10:01	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/02/12 10:01	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/02/12 10:01	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/02/12 10:01	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/02/12 10:01	JKG	

Description: 4112-MW25B

Matrix: Ground Water

Project: White Street Landfill AppI (Phase III)

Lab Sample ID: C204204-11

Sampled: 04/19/12 15:15

Sampled By: Gary Simcox

Received: 04/23/12 10:30

Work Order: C204204

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/02/12 10:01	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	48	1	50.0	95 %	51-122	2E01012	EPA 8260B	05/02/12 10:01	JKG		
Dibromofluoromethane	48	1	50.0	96 %	68-117	2E01012	EPA 8260B	05/02/12 10:01	JKG		
Toluene-d8	48	1	50.0	97 %	67-127	2E01012	EPA 8260B	05/02/12 10:01	JKG		

Description: 4112-MW25B

Lab Sample ID: C204204-11

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 15:15

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	04/26/12 13:05	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	04/26/12 13:34	JDH	
Barium [7440-39-3] ^	14.6	J	ug/L	1	1.00	10.0	100	EPA 6010C	04/26/12 13:34	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	04/26/12 13:34	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	04/26/12 13:34	JDH	
Chromium [7440-47-3] ^	3.05	J	ug/L	1	1.00	10.0	10	EPA 6010C	04/26/12 13:34	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	04/26/12 13:34	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	04/26/12 13:34	JDH	
Lead [7439-92-1] ^	2.17	J	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:34	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	04/26/12 13:34	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	04/26/12 13:05	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:34	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	04/26/12 13:05	VLO	
Vanadium [7440-62-2] ^	3.43	J	ug/L	1	1.40	10.0	25	EPA 6010C	04/26/12 13:34	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	04/26/12 13:34	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

Description: 4112-DUPLICATEIII

Lab Sample ID: C204204-12

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 08:00

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/02/12 14:56	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/02/12 14:56	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/02/12 14:56	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 14:56	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/02/12 14:56	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/02/12 14:56	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/02/12 14:56	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/02/12 14:56	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/02/12 14:56	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/02/12 14:56	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/02/12 14:56	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/02/12 14:56	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/02/12 14:56	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/02/12 14:56	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/02/12 14:56	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 14:56	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/02/12 14:56	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/02/12 14:56	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/02/12 14:56	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/02/12 14:56	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/02/12 14:56	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/02/12 14:56	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/02/12 14:56	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/02/12 14:56	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/02/12 14:56	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/02/12 14:56	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/02/12 14:56	JKG	

Description: 4112-DUPLICATEIII

Lab Sample ID: C204204-12

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 08:00

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/02/12 14:56	JKG	

Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	48	1	50.0	96 %	51-122	2E02016	EPA 8260B	05/02/12 14:56	JKG	
Dibromofluoromethane	47	1	50.0	95 %	68-117	2E02016	EPA 8260B	05/02/12 14:56	JKG	
Toluene-d8	48	1	50.0	95 %	67-127	2E02016	EPA 8260B	05/02/12 14:56	JKG	

Description: 4112-DUPLICATEIII

Lab Sample ID: C204204-12

Received: 04/23/12 10:30

Matrix: Ground Water

Sampled: 04/19/12 08:00

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: Gary Simcox

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	04/26/12 13:08	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	04/26/12 13:36	JDH	
Barium [7440-39-3] ^	36.5	J	ug/L	1	1.00	10.0	100	EPA 6010C	04/26/12 13:36	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	04/26/12 13:36	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	04/26/12 13:36	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	04/26/12 13:36	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	04/26/12 13:36	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	04/26/12 13:36	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:36	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	04/26/12 13:36	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	04/26/12 13:08	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	04/26/12 13:36	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	04/26/12 13:08	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	04/26/12 13:36	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	04/26/12 13:36	JDH	

Description: 4112-TripBlank#3

Lab Sample ID: C204204-13

Received: 04/23/12 10:30

Matrix: Water

Sampled: 04/18/12 15:10

Work Order: C204204

Project: White Street Landfill AppI (Phase III)

Sampled By: ENCO

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/01/12 17:16	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/01/12 17:16	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/01/12 17:16	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/01/12 17:16	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/01/12 17:16	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/01/12 17:16	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/01/12 17:16	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/01/12 17:16	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/01/12 17:16	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/01/12 17:16	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/01/12 17:16	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/01/12 17:16	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/01/12 17:16	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/01/12 17:16	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/01/12 17:16	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/01/12 17:16	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/01/12 17:16	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/01/12 17:16	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/01/12 17:16	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/01/12 17:16	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/01/12 17:16	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/01/12 17:16	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/01/12 17:16	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/01/12 17:16	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/01/12 17:16	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/01/12 17:16	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/01/12 17:16	JKG	

Description: 4112-TripBlank#3

Lab Sample ID: C204204-13

Received: 04/23/12 10:30

Matrix: Water

Sampled: 04/18/12 15:10

Work Order: C204204

Project: White Street Landfill Appl (Phase III)

Sampled By: ENCO

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/01/12 17:16	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	51	1	50.0	102 %	51-122	2D27010	EPA 8260B	05/01/12 17:16	JKG		
Dibromofluoromethane	50	1	50.0	99 %	68-117	2D27010	EPA 8260B	05/01/12 17:16	JKG		
Toluene-d8	50	1	50.0	99 %	67-127	2D27010	EPA 8260B	05/01/12 17:16	JKG		

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2D27010 - EPA 5030B_MS

Blank (2D27010-BLK1)

Prepared: 04/27/2012 10:54 Analyzed: 05/01/2012 09:56

1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L
1,1,1-Trichloroethane	0.12	U	1.0	ug/L
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L
1,1,2-Trichloroethane	0.14	U	1.0	ug/L
1,1-Dichloroethane	0.13	U	1.0	ug/L
1,1-Dichloroethene	0.21	U	1.0	ug/L
1,2,3-Trichloropropane	0.23	U	1.0	ug/L
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L
1,2-Dibromoethane	0.66	U	1.0	ug/L
1,2-Dichlorobenzene	0.19	U	1.0	ug/L
1,2-Dichloroethane	0.21	U	1.0	ug/L
1,2-Dichloropropane	0.10	U	1.0	ug/L
1,4-Dichlorobenzene	0.19	U	1.0	ug/L
2-Butanone	1.3	U	5.0	ug/L
2-Hexanone	0.88	U	5.0	ug/L
4-Methyl-2-pentanone	1.1	U	5.0	ug/L
Acetone	1.2	U	5.0	ug/L
Acrylonitrile	3.5	U	10	ug/L
Benzene	0.15	U	1.0	ug/L
Bromochloromethane	0.48	U	1.0	ug/L
Bromodichloromethane	0.17	U	1.0	ug/L
Bromoform	0.22	U	1.0	ug/L
Bromomethane	0.14	U	1.0	ug/L
Carbon disulfide	1.5	U	5.0	ug/L
Carbon tetrachloride	0.17	U	1.0	ug/L
Chlorobenzene	0.17	U	1.0	ug/L
Chloroethane	0.23	U	1.0	ug/L
Chloroform	0.18	U	1.0	ug/L
Chloromethane	0.13	U	1.0	ug/L
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L
Dibromochloromethane	0.17	U	1.0	ug/L
Dibromomethane	0.27	U	1.0	ug/L
Ethylbenzene	0.13	U	1.0	ug/L
Iodomethane	1.7	U	5.0	ug/L
Methylene chloride	0.23	U	1.0	ug/L
Styrene	0.11	U	1.0	ug/L
Tetrachloroethene	0.17	U	1.0	ug/L
Toluene	0.14	U	1.0	ug/L
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L
Trichloroethene	0.15	U	1.0	ug/L
Trichlorofluoromethane	0.24	U	1.0	ug/L
Vinyl acetate	0.95	U	5.0	ug/L
Vinyl chloride	0.32	U	1.0	ug/L
Xylenes (Total)	0.45	U	3.0	ug/L
Surrogate: 4-Bromofluorobenzene	51		ug/L	50.0
				102
				51-122

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2D27010 - EPA 5030B_MS

Blank (2D27010-BLK1) Continued

Prepared: 04/27/2012 10:54 Analyzed: 05/01/2012 09:56

Surrogate: Dibromofluoromethane	50	ug/L	50.0	101	68-117
Surrogate: Toluene-d8	52	ug/L	50.0	103	67-127

LCS (2D27010-BS1)

Prepared: 04/27/2012 10:54 Analyzed: 05/01/2012 10:26

1,1-Dichloroethene	18	1.0	ug/L	20.0	92	75-133
Benzene	18	1.0	ug/L	20.0	92	81-134
Chlorobenzene	20	1.0	ug/L	20.0	99	83-117
Toluene	18	1.0	ug/L	20.0	91	71-118
Trichloroethene	19	1.0	ug/L	20.0	96	82-118

Matrix Spike (2D27010-MS1)

Prepared: 04/27/2012 10:54 Analyzed: 05/01/2012 10:55

Source: C204830-02

1,1-Dichloroethene	20	1.0	ug/L	20.0	0.21 U	100	75-133
Benzene	19	1.0	ug/L	20.0	0.15 U	97	81-134
Chlorobenzene	21	1.0	ug/L	20.0	0.17 U	104	83-117
Toluene	19	1.0	ug/L	20.0	0.14 U	96	71-118
Trichloroethene	21	1.0	ug/L	20.0	0.15 U	104	82-118

Matrix Spike Dup (2D27010-MSD1)

Prepared: 04/27/2012 10:54 Analyzed: 05/01/2012 11:24

Source: C204830-02

1,1-Dichloroethene	18	1.0	ug/L	20.0	0.21 U	90	75-133	11	20
Benzene	18	1.0	ug/L	20.0	0.15 U	92	81-134	5	17
Chlorobenzene	20	1.0	ug/L	20.0	0.17 U	100	83-117	5	16
Toluene	18	1.0	ug/L	20.0	0.14 U	91	71-118	6	17
Trichloroethene	19	1.0	ug/L	20.0	0.15 U	97	82-118	7	15

Batch 2E01012 - EPA 5030B_MS

Blank (2E01012-BLK1)

Prepared: 05/01/2012 10:17 Analyzed: 05/01/2012 23:41

1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L
1,1,1-Trichloroethane	0.12	U	1.0	ug/L
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L
1,1,2-Trichloroethane	0.14	U	1.0	ug/L
1,1-Dichloroethane	0.13	U	1.0	ug/L
1,1-Dichloroethene	0.21	U	1.0	ug/L
1,2,3-Trichloropropane	0.23	U	1.0	ug/L
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L
1,2-Dibromoethane	0.66	U	1.0	ug/L
1,2-Dichlorobenzene	0.19	U	1.0	ug/L

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E01012 - EPA 5030B_MS

Blank (2E01012-BLK1) Continued

Prepared: 05/01/2012 10:17 Analyzed: 05/01/2012 23:41

1,2-Dichloroethane	0.21	U	1.0	ug/L		
1,2-Dichloropropane	0.10	U	1.0	ug/L		
1,4-Dichlorobenzene	0.19	U	1.0	ug/L		
2-Butanone	1.3	U	5.0	ug/L		
2-Hexanone	0.88	U	5.0	ug/L		
4-Methyl-2-pentanone	1.1	U	5.0	ug/L		
Acetone	1.2	U	5.0	ug/L		
Acrylonitrile	3.5	U	10	ug/L		
Benzene	0.15	U	1.0	ug/L		
Bromochloromethane	0.48	U	1.0	ug/L		
Bromodichloromethane	0.17	U	1.0	ug/L		
Bromoform	0.22	U	1.0	ug/L		
Bromomethane	0.14	U	1.0	ug/L		
Carbon disulfide	1.5	U	5.0	ug/L		
Carbon tetrachloride	0.17	U	1.0	ug/L		
Chlorobenzene	0.17	U	1.0	ug/L		
Chloroethane	0.23	U	1.0	ug/L		
Chloroform	0.18	U	1.0	ug/L		
Chloromethane	0.13	U	1.0	ug/L		
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L		
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L		
Dibromochloromethane	0.17	U	1.0	ug/L		
Dibromomethane	0.27	U	1.0	ug/L		
Ethylbenzene	0.13	U	1.0	ug/L		
Iodomethane	1.7	U	5.0	ug/L		
Methylene chloride	0.23	U	1.0	ug/L		
Styrene	0.11	U	1.0	ug/L		
Tetrachloroethene	0.17	U	1.0	ug/L		
Toluene	0.14	U	1.0	ug/L		
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L		
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L		
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L		
Trichloroethene	0.15	U	1.0	ug/L		
Trichlorofluoromethane	0.24	U	1.0	ug/L		
Vinyl acetate	0.95	U	5.0	ug/L		
Vinyl chloride	0.32	U	1.0	ug/L		
Xylenes (Total)	0.45	U	3.0	ug/L		
Surrogate: 4-Bromofluorobenzene	46			ug/L	50.0	92 51-122
Surrogate: Dibromofluoromethane	45			ug/L	50.0	90 68-117
Surrogate: Toluene-d8	47			ug/L	50.0	93 67-127

LCS (2E01012-BS1)

Prepared: 05/01/2012 10:17 Analyzed: 05/02/2012 00:10

1,1-Dichloroethene	23		1.0	ug/L	20.0	113 75-133
Benzene	21		1.0	ug/L	20.0	107 81-134
Chlorobenzene	21		1.0	ug/L	20.0	106 83-117
Toluene	22		1.0	ug/L	20.0	108 71-118

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E01012 - EPA 5030B_MS

LCS (2E01012-BS1) Continued

Prepared: 05/01/2012 10:17 Analyzed: 05/02/2012 00:10

Trichloroethene	20	1.0	ug/L	20.0	102	82-118
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Matrix Spike (2E01012-MS1)

Prepared: 05/01/2012 10:17 Analyzed: 05/02/2012 00:40

Source: C204966-01

1,1-Dichloroethene	20	1.0	ug/L	20.0	0.21 U	102	75-133
Benzene	20	1.0	ug/L	20.0	0.15 U	101	81-134
Chlorobenzene	20	1.0	ug/L	20.0	0.17 U	101	83-117
Toluene	20	1.0	ug/L	20.0	0.14 U	100	71-118
Trichloroethene	20	1.0	ug/L	20.0	0.15 U	98	82-118

Matrix Spike Dup (2E01012-MSD1)

Prepared: 05/01/2012 10:17 Analyzed: 05/02/2012 01:09

Source: C204966-01

1,1-Dichloroethene	21	1.0	ug/L	20.0	0.21 U	103	75-133	0.6	20
Benzene	20	1.0	ug/L	20.0	0.15 U	100	81-134	1	17
Chlorobenzene	20	1.0	ug/L	20.0	0.17 U	100	83-117	0.4	16
Toluene	20	1.0	ug/L	20.0	0.14 U	100	71-118	0.4	17
Trichloroethene	20	1.0	ug/L	20.0	0.15 U	98	82-118	0.4	15

Batch 2E02016 - EPA 5030B_MS

Blank (2E02016-BLK1)

Prepared: 05/02/2012 10:35 Analyzed: 05/02/2012 12:29

1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L
1,1,1-Trichloroethane	0.12	U	1.0	ug/L
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L
1,1,2-Trichloroethane	0.14	U	1.0	ug/L
1,1-Dichloroethane	0.13	U	1.0	ug/L
1,1-Dichloroethene	0.21	U	1.0	ug/L
1,2,3-Trichloropropane	0.23	U	1.0	ug/L
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L
1,2-Dibromoethane	0.66	U	1.0	ug/L
1,2-Dichlorobenzene	0.19	U	1.0	ug/L
1,2-Dichloroethane	0.21	U	1.0	ug/L
1,2-Dichloropropane	0.10	U	1.0	ug/L
1,4-Dichlorobenzene	0.19	U	1.0	ug/L
2-Butanone	1.3	U	5.0	ug/L
2-Hexanone	0.88	U	5.0	ug/L
4-Methyl-2-pentanone	1.1	U	5.0	ug/L
Acetone	1.2	U	5.0	ug/L
Acrylonitrile	3.5	U	10	ug/L
Benzene	0.15	U	1.0	ug/L
Bromochloromethane	0.48	U	1.0	ug/L
Bromodichloromethane	0.17	U	1.0	ug/L

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E02016 - EPA 5030B_MS

Blank (2E02016-BLK1) Continued

Prepared: 05/02/2012 10:35 Analyzed: 05/02/2012 12:29

Bromoform	0.22	U	1.0	ug/L		
Bromomethane	0.14	U	1.0	ug/L		
Carbon disulfide	1.5	U	5.0	ug/L		
Carbon tetrachloride	0.17	U	1.0	ug/L		
Chlorobenzene	0.17	U	1.0	ug/L		
Chloroethane	0.23	U	1.0	ug/L		
Chloroform	0.18	U	1.0	ug/L		
Chloromethane	0.13	U	1.0	ug/L		
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L		
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L		
Dibromochloromethane	0.17	U	1.0	ug/L		
Dibromomethane	0.27	U	1.0	ug/L		
Ethylbenzene	0.13	U	1.0	ug/L		
Iodomethane	1.7	U	5.0	ug/L		
Methylene chloride	0.23	U	1.0	ug/L		
Styrene	0.11	U	1.0	ug/L		
Tetrachloroethene	0.17	U	1.0	ug/L		
Toluene	0.14	U	1.0	ug/L		
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L		
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L		
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L		
Trichloroethene	0.15	U	1.0	ug/L		
Trichlorofluoromethane	0.24	U	1.0	ug/L		
Vinyl acetate	0.95	U	5.0	ug/L		
Vinyl chloride	0.32	U	1.0	ug/L		
Xylenes (Total)	0.45	U	3.0	ug/L		
Surrogate: 4-Bromofluorobenzene	47			ug/L	50.0	94 51-122
Surrogate: Dibromofluoromethane	48			ug/L	50.0	96 68-117
Surrogate: Toluene-d8	48			ug/L	50.0	97 67-127

LCS (2E02016-BS1)

Prepared: 05/02/2012 10:35 Analyzed: 05/02/2012 12:58

1,1-Dichloroethene	22		1.0	ug/L	20.0	111 75-133
Benzene	21		1.0	ug/L	20.0	105 81-134
Chlorobenzene	20		1.0	ug/L	20.0	101 83-117
Toluene	20		1.0	ug/L	20.0	100 71-118
Trichloroethene	20		1.0	ug/L	20.0	98 82-118

Matrix Spike (2E02016-MS1)

Prepared: 05/02/2012 10:35 Analyzed: 05/02/2012 13:28

Source: C204966-02

1,1-Dichloroethene	23		1.0	ug/L	20.0	0.21 U	116 75-133
Benzene	21		1.0	ug/L	20.0	0.15 U	106 81-134
Chlorobenzene	21		1.0	ug/L	20.0	0.17 U	107 83-117
Toluene	21		1.0	ug/L	20.0	0.14 U	107 71-118
Trichloroethene	21		1.0	ug/L	20.0	0.15 U	103 82-118

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E02016 - EPA 5030B_MS

Matrix Spike Dup (2E02016-MSD1)

Prepared: 05/02/2012 10:35 Analyzed: 05/02/2012 13:58

Source: C204966-02

1,1-Dichloroethene	21	1.0	ug/L	20.0	0.21 U	104	75-133	10	20
Benzene	20	1.0	ug/L	20.0	0.15 U	98	81-134	8	17
Chlorobenzene	19	1.0	ug/L	20.0	0.17 U	96	83-117	11	16
Toluene	19	1.0	ug/L	20.0	0.14 U	96	71-118	11	17
Trichloroethene	19	1.0	ug/L	20.0	0.15 U	93	82-118	10	15

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2D25003 - EPA 200.7

Blank (2D25003-BLK1)

Prepared: 04/25/2012 08:12 Analyzed: 04/26/2012 12:41

Arsenic	2.80	U	10.0	ug/L
Barium	1.00	U	10.0	ug/L
Beryllium	0.100	U	1.00	ug/L
Cadmium	0.360	U	1.00	ug/L
Chromium	1.00	U	10.0	ug/L
Cobalt	1.10	U	10.0	ug/L
Copper	1.60	U	10.0	ug/L
Lead	1.90	U	10.0	ug/L
Nickel	1.80	U	10.0	ug/L
Silver	1.90	U	10.0	ug/L
Vanadium	1.40	U	10.0	ug/L
Zinc	3.80	U	10.0	ug/L

LCS (2D25003-BS1)

Prepared: 04/25/2012 08:12 Analyzed: 04/26/2012 12:43

Arsenic	205	10.0	ug/L	200	103	80-120
Barium	208	10.0	ug/L	200	104	80-120
Beryllium	20.6	1.00	ug/L	20.0	103	80-120
Cadmium	21.2	1.00	ug/L	20.0	106	80-120
Chromium	205	10.0	ug/L	200	102	80-120
Cobalt	214	10.0	ug/L	200	107	80-120
Copper	202	10.0	ug/L	200	101	80-120
Lead	207	10.0	ug/L	200	103	80-120
Nickel	207	10.0	ug/L	200	104	80-120
Silver	206	10.0	ug/L	200	103	80-120
Vanadium	208	10.0	ug/L	200	104	80-120
Zinc	213	10.0	ug/L	200	107	80-120

Matrix Spike (2D25003-MS1)

Prepared: 04/25/2012 08:12 Analyzed: 04/26/2012 12:47

Source: C203240-01

QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2D25003 - EPA 200.7

Matrix Spike (2D25003-MS1) Continued

Prepared: 04/25/2012 08:12 Analyzed: 04/26/2012 12:47

Source: C203240-01

Element	Conc	Unit	Method	Result	Std	Recovery	Range
Arsenic	207	10.0	ug/L	200	2.80 U	103	75-125
Barium	245	10.0	ug/L	200	31.0	107	75-125
Beryllium	20.6	1.00	ug/L	20.0	0.100 U	103	75-125
Cadmium	22.4	1.00	ug/L	20.0	0.734	108	75-125
Chromium	207	10.0	ug/L	200	2.83	102	75-125
Cobalt	213	10.0	ug/L	200	1.10 U	106	75-125
Copper	260	10.0	ug/L	200	57.6	101	75-125
Lead	238	10.0	ug/L	200	32.9	103	75-125
Nickel	219	10.0	ug/L	200	7.00	106	75-125
Silver	205	10.0	ug/L	200	1.90 U	102	75-125
Vanadium	211	10.0	ug/L	200	2.80	104	75-125
Zinc	326	10.0	ug/L	200	112	107	75-125

Matrix Spike Dup (2D25003-MSD1)

Prepared: 04/25/2012 08:12 Analyzed: 04/26/2012 12:49

Source: C203240-01

Element	Conc	Unit	Method	Result	Std	Recovery	Range	Conc	Unit
Arsenic	205	10.0	ug/L	200	2.80 U	102	75-125	0.8	20
Barium	235	10.0	ug/L	200	31.0	102	75-125	4	20
Beryllium	20.7	1.00	ug/L	20.0	0.100 U	103	75-125	0.6	20
Cadmium	21.6	1.00	ug/L	20.0	0.734	104	75-125	4	20
Chromium	208	10.0	ug/L	200	2.83	102	75-125	0.5	20
Cobalt	214	10.0	ug/L	200	1.10 U	107	75-125	0.4	20
Copper	261	10.0	ug/L	200	57.6	101	75-125	0.3	20
Lead	237	10.0	ug/L	200	32.9	102	75-125	0.6	20
Nickel	212	10.0	ug/L	200	7.00	102	75-125	3	20
Silver	205	10.0	ug/L	200	1.90 U	102	75-125	0.07	20
Vanadium	213	10.0	ug/L	200	2.80	105	75-125	0.9	20
Zinc	314	10.0	ug/L	200	112	101	75-125	4	20

Post Spike (2D25003-PS1)

Prepared: 04/25/2012 08:12 Analyzed: 04/26/2012 12:51

Source: C203240-01

Element	Conc	Unit	Method	Result	Std	Recovery	Range
Arsenic	0.196	0.0100	mg/L	0.200	0.00257	97	80-120
Barium	0.228	0.0100	mg/L	0.200	0.0310	98	80-120
Beryllium	0.0199	0.00100	mg/L	0.0200	1.25E-5	99	80-120
Cadmium	0.0208	0.00100	mg/L	0.0200	0.000734	100	80-120
Chromium	0.199	0.0100	mg/L	0.200	0.00283	98	80-120
Cobalt	0.205	0.0100	mg/L	0.200	0.000581	102	80-120
Copper	0.253	0.0100	mg/L	0.200	0.0576	98	80-120
Lead	0.229	0.0100	mg/L	0.200	0.0329	98	80-120
Nickel	0.204	0.0100	mg/L	0.200	0.00700	98	80-120
Silver	0.208	0.0100	mg/L	0.200	-0.000198	104	80-120
Vanadium	0.204	0.0100	mg/L	0.200	0.00280	101	80-120
Zinc	0.307	0.0100	mg/L	0.200	0.112	98	80-120

QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2D25003 - EPA 200.7

Batch 2D25004 - EPA 3005A

Blank (2D25004-BLK1)

Prepared: 04/25/2012 08:15 Analyzed: 04/26/2012 11:55

Antimony	0.220	U	2.00	ug/L
Selenium	0.830	U	1.00	ug/L
Thallium	0.110	U	1.00	ug/L

LCS (2D25004-BS1)

Prepared: 04/25/2012 08:15 Analyzed: 04/26/2012 11:59

Antimony	203	2.00	ug/L	200	101	80-120
Selenium	212	1.00	ug/L	200	106	80-120
Thallium	199	1.00	ug/L	200	100	80-120

Matrix Spike (2D25004-MS1)

Prepared: 04/25/2012 08:15 Analyzed: 04/26/2012 12:07

Source: C204204-01

Antimony	204	2.00	ug/L	200	0.881	101	75-125
Selenium	224	1.00	ug/L	200	0.830 U	112	75-125
Thallium	187	1.00	ug/L	200	0.110 U	93	75-125

Matrix Spike Dup (2D25004-MSD1)

Prepared: 04/25/2012 08:15 Analyzed: 04/26/2012 12:10

Source: C204204-01

Antimony	205	2.00	ug/L	200	0.881	102	75-125	0.4	20
Selenium	213	1.00	ug/L	200	0.830 U	107	75-125	5	20
Thallium	186	1.00	ug/L	200	0.110 U	93	75-125	0.4	20

Post Spike (2D25004-PS1)

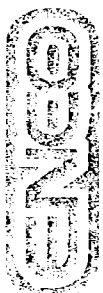
Prepared: 04/25/2012 08:15 Analyzed: 04/26/2012 12:14

Source: C204204-01

Antimony	214	2.00	ug/L	200	0.881	107	80-120
Selenium	224	1.00	ug/L	200	0.162	112	80-120
Thallium	195	1.00	ug/L	200	0.0213	98	80-120

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.



ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD
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Page 1 of 2

Client Name S&ME, Inc. (SM004)		Project Number [none]	
Address 3718 Old Battleground Rd. Greensboro, NC 27410		Project Name/Class White Street Landfill Appl (Phase III)	
City/State/Zip Greensboro, NC 27410		PO # / Billing Info	
Tel (336) 288-7180		Fax (336) 288-8980	
Reporting Contact Edmund Henriques		Billing Contact Accounts Payable	
Sample(s) Name, Affiliation (Print) GARY SIMON / S&ME, INC.		Site Location / Time Zone	
Sample(s) Signature <i>[Signature]</i>			

Requested Analyses		Requested Turnaround Times	
Ag As Ba Be Cd Co Cr Cu Ni Pb Sb Se		Note: Rush requests subject to acceptance by the facility	
8260B Appendix 1		Standard	
		Expedited	
		Due <u> </u> / <u> </u> / <u> </u>	
		Lab Workorder C204204	

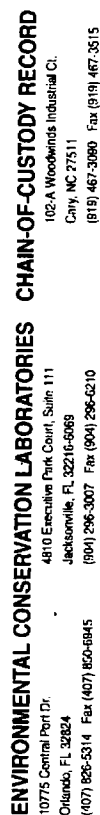
Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers														Sample Comments
	4112-MW15	4/19/12	1040	G	GW	4	X	X												
	4112-MW16	4/19/12	0925	G	GW	4	X	X												
	4112-MW17	4/20/12	1035	G	GW	4	X	X												
	4112-MW18	4/20/12	0930	G	GW	4	X	X												
	4112-MW19	4/19/12	1620	G	GW	4	X	X												
	4112-MW20	4/19/12	1605	G	GW	4	X	X												
	4112-MW21	4/19/12	1310	G	GW	4	X	X												
	4112-MW22	4/19/12	1215	G	GW	4	X	X												
	4112-MW23	4/19/12	1610	G	GW	4	X	X												
	4112-MW24	4/19/12	1510	G	GW	4	X	X												
	4112-MW25				GW	4	X	X												
	4112-MW25E	4/19/12	1515	G	GW	4	X	X												

Sample Kit Prepared By RJS + MES		Date/Time 4/11/12		Retinquished By		Date/Time		Received By Biana Shear		Date/Time 4/23/12 10:30	
Comments/Special Reporting Requirements				Retinquished By		Date/Time		Received By		Date/Time	
				Retinquished By		Date/Time		Received By		Date/Time	
Cooler #s & Temps on Receipt				Condition Upon Receipt				Acceptable		Unacceptable	

Matrix: GW-Groundwater SD-Sol DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments)
Preservation: I-Ice H-HCl H-HNO3 H-H2SO4 MO-MO-NH4 O-Other (detail in comments)
Note: All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist.



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Preservation: 1-C8 H-HC N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090

FAX: 919.467.3515



www.encolabs.com

Monday, April 30, 2012

S&ME, Inc. (SM004)

Attn: Edmund Henriques

3718 Old Battleground Rd.

Greensboro, NC 27410

Leachate

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: White Street Landfill Leachate

ENCO Workorder(s): C204202

Dear Edmund Henriques,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Wednesday, April 18, 2012.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Chuck Smith".

Chuck Smith

Project Manager

Enclosure(s)

SAMPLE SUMMARY/LABORATORY CHRONICLE

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	05/15/12	04/25/12 08:17	4/26/2012 01:36
EPA 353.2	05/15/12	04/25/12 06:13	4/25/2012 09:38
EPA 353.2	01/11/15	04/29/12 16:46	4/29/2012 18:23
EPA 365.4	05/15/12	04/25/12 10:12	4/26/2012 11:39
EPA 6010C	10/14/12	04/19/12 08:42	4/23/2012 11:23
EPA 6020A	10/14/12	04/20/12 09:00	4/24/2012 11:43
SM 5210B	04/19/12 12:15	04/18/12 15:45	4/18/2012 15:45
SM 5220D	05/15/12	04/25/12 13:41	4/25/2012 18:36
SM4500-H/B	04/17/12 12:29	04/20/12 13:35	4/20/2012 13:35

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	05/01/12	04/19/12 17:18	4/24/2012 01:32

SAMPLE DETECTION SUMMARY

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Antimony - Total	29.2	D	2.20	20.0	ug/L	EPA 6020A	
Arsenic - Total	113		2.80	10.0	ug/L	EPA 6010C	
Barium - Total	661		1.00	10.0	ug/L	EPA 6010C	
Biochemical Oxygen Demand	310		2.0	2.0	mg/L	SM 5210B	B-04
Chemical Oxygen Demand	1200		100	100	mg/L	SM 5220D	
Chromium - Total	52.2		1.00	10.0	ug/L	EPA 6010C	
Cobalt - Total	26.9		1.10	10.0	ug/L	EPA 6010C	
Copper - Total	32.0		1.60	10.0	ug/L	EPA 6010C	
Nickel - Total	153		1.80	10.0	ug/L	EPA 6010C	
Nitrate as N	0.038	J	0.025	0.10	mg/L	EPA 353.2	
Nitrate/Nitrite as N	0.050	J	0.025	0.10	mg/L	EPA 353.2	
pH	6.8		1.0	1.0	pH Units	SM4500-H/B	Q
Phosphorus	1.4	D	0.24	1.0	mg/L	EPA 365.4	
Sulfate as SO ₄	5.3	B	0.04	5.0	mg/L	EPA 300.0	J-01
Vanadium - Total	47.5		1.40	10.0	ug/L	EPA 6010C	
Zinc - Total	104		3.80	10.0	ug/L	EPA 6010C	

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
2-Butanone	4700	D	130	500	ug/L	EPA 8260B	
4-Methyl-2-pentanone	140	JD	110	500	ug/L	EPA 8260B	
Acetone	4800	D	120	500	ug/L	EPA 8260B	
Ethylbenzene	36	JD	13	100	ug/L	EPA 8260B	
Toluene	97	JD	14	100	ug/L	EPA 8260B	
Xylenes (Total)	160	JD	45	300	ug/L	EPA 8260B	

ANALYTICAL RESULTS

Description: 4112-Leachate

Lab Sample ID: C204202-01

Received: 04/18/12 13:00

Matrix: Ground Water

Sampled: 04/17/12 12:15

Work Order: C204202

Project: White Street Landfill Leachate

Sampled By: Client

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	17	UD	ug/L	100	17	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
1,1,1-Trichloroethane [71-55-6] ^	12	UD	ug/L	100	12	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	28	UD	ug/L	100	28	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
1,1,2-Trichloroethane [79-00-5] ^	14	UD	ug/L	100	14	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
1,1-Dichloroethane [75-34-3] ^	13	UD	ug/L	100	13	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
1,1-Dichloroethene [75-35-4] ^	21	UD	ug/L	100	21	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
1,2,3-Trichloropropane [96-18-4] ^	23	UD	ug/L	100	23	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	48	UD	ug/L	100	48	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
1,2-Dibromoethane [106-93-4] ^	66	UD	ug/L	100	66	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
1,2-Dichlorobenzene [95-50-1] ^	19	UD	ug/L	100	19	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
1,2-Dichloroethane [107-06-2] ^	21	UD	ug/L	100	21	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
1,2-Dichloropropane [78-87-5] ^	10	UD	ug/L	100	10	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
1,4-Dichlorobenzene [106-46-7] ^	19	UD	ug/L	100	19	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
2-Butanone [78-93-3] ^	4700	D	ug/L	100	130	500	2D23027	EPA 8260B	04/24/12 01:32	JKG	
2-Hexanone [591-78-6] ^	88	UD	ug/L	100	88	500	2D23027	EPA 8260B	04/24/12 01:32	JKG	
4-Methyl-2-pentanone [108-10-1] ^	140	JD	ug/L	100	110	500	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Acetone [67-64-1] ^	4800	D	ug/L	100	120	500	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Acrylonitrile [107-13-1] ^	350	UD	ug/L	100	350	1000	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Benzene [71-43-2] ^	15	UD	ug/L	100	15	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Bromochloromethane [74-97-5] ^	48	UD	ug/L	100	48	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Bromodichloromethane [75-27-4] ^	17	UD	ug/L	100	17	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Bromoform [75-25-2] ^	22	UD	ug/L	100	22	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Bromomethane [74-83-9] ^	14	UD	ug/L	100	14	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Carbon disulfide [75-15-0] ^	150	UD	ug/L	100	150	500	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Carbon tetrachloride [56-23-5] ^	17	UD	ug/L	100	17	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Chlorobenzene [108-90-7] ^	17	UD	ug/L	100	17	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Chloroethane [75-00-3] ^	23	UD	ug/L	100	23	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Chloroform [67-66-3] ^	18	UD	ug/L	100	18	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Chloromethane [74-87-3] ^	13	UD	ug/L	100	13	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	15	UD	ug/L	100	15	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	20	UD	ug/L	100	20	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Dibromochloromethane [124-48-1] ^	17	UD	ug/L	100	17	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Dibromomethane [74-95-3] ^	27	UD	ug/L	100	27	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Ethylbenzene [100-41-4] ^	36	JD	ug/L	100	13	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Iodomethane [74-88-4] ^	170	UD	ug/L	100	170	500	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Methylene chloride [75-09-2] ^	23	UD	ug/L	100	23	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Styrene [100-42-5] ^	11	UD	ug/L	100	11	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Tetrachloroethene [127-18-4] ^	17	UD	ug/L	100	17	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Toluene [108-88-3] ^	97	JD	ug/L	100	14	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	21	UD	ug/L	100	21	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	15	UD	ug/L	100	15	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	70	UD	ug/L	100	70	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Trichloroethene [79-01-6] ^	15	UD	ug/L	100	15	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Trichlorofluoromethane [75-69-4] ^	24	UD	ug/L	100	24	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Vinyl acetate [108-05-4] ^	95	UD	ug/L	100	95	500	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Vinyl chloride [75-01-4] ^	32	UD	ug/L	100	32	100	2D23027	EPA 8260B	04/24/12 01:32	JKG	
Xylenes (Total) [1330-20-7] ^	160	JD	ug/L	100	45	300	2D23027	EPA 8260B	04/24/12 01:32	JKG	

Description: 4112-Leachate

Matrix: Ground Water

Project: White Street Landfill Leachate

Lab Sample ID: C204202-01

Sampled: 04/17/12 12:15

Sampled By: Client

Received: 04/18/12 13:00

Work Order: C204202

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits		Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	53	1	50.0	107 %	51-122		2D23027	EPA 8260B	04/24/12 01:32	JKG	
Dibromofluoromethane	49	1	50.0	98 %	68-117		2D23027	EPA 8260B	04/24/12 01:32	JKG	
Toluene-d8	50	1	50.0	100 %	67-127		2D23027	EPA 8260B	04/24/12 01:32	JKG	

Description: 4112-Leachate

Lab Sample ID: C204202-01

Received: 04/18/12 13:00

Matrix: Ground Water

Sampled: 04/17/12 12:15

Work Order: C204202

Project: White Street Landfill Leachate

Sampled By: Client

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	29.2	D	ug/L	10	2.20	20.0	2D20004	EPA 6020A	04/24/12 11:43	VLO	
Arsenic [7440-38-2] ^	113		ug/L	1	2.80	10.0	2D19007	EPA 6010C	04/23/12 11:23	JDH	
Barium [7440-39-3] ^	661		ug/L	1	1.00	10.0	2D19007	EPA 6010C	04/23/12 11:23	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	2D19007	EPA 6010C	04/23/12 11:23	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	2D19007	EPA 6010C	04/23/12 11:23	JDH	
Chromium [7440-47-3] ^	52.2		ug/L	1	1.00	10.0	2D19007	EPA 6010C	04/23/12 11:23	JDH	
Cobalt [7440-48-4] ^	26.9		ug/L	1	1.10	10.0	2D19007	EPA 6010C	04/23/12 11:23	JDH	
Copper [7440-50-8] ^	32.0		ug/L	1	1.60	10.0	2D19007	EPA 6010C	04/23/12 11:23	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	2D19007	EPA 6010C	04/23/12 11:23	JDH	
Nickel [7440-02-0] ^	153		ug/L	1	1.80	10.0	2D19007	EPA 6010C	04/23/12 11:23	JDH	
Selenium [7782-49-2] ^	8.30	UD	ug/L	10	8.30	10.0	2D20004	EPA 6020A	04/24/12 11:43	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	2D19007	EPA 6010C	04/23/12 11:23	JDH	
Thallium [7440-28-0] ^	1.10	UD	ug/L	10	1.10	10.0	2D20004	EPA 6020A	04/24/12 11:43	VLO	
Vanadium [7440-62-2] ^	47.5		ug/L	1	1.40	10.0	2D19007	EPA 6010C	04/23/12 11:23	JDH	
Zinc [7440-66-6] ^	104		ug/L	1	3.80	10.0	2D19007	EPA 6010C	04/23/12 11:23	JDH	

Description: 4112-Leachate

Matrix: Ground Water

Project: White Street Landfill Leachate

Lab Sample ID: C204202-01

Sampled: 04/17/12 12:15

Sampled By: Client

Received: 04/18/12 13:00

Work Order: C204202

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
Biochemical Oxygen Demand [ECL-0017] ^	310		mg/L	1	2.0	2.0	2D18022	SM 5210B	04/18/12 15:45	JOC	B-04
Chemical Oxygen Demand [ECL-0035] ^	1200		mg/L	1	100	100	2D25023	SM 5220D	04/25/12 18:36	JOC	
Nitrate as N [14797-55-8] ^	0.038	J	mg/L	1	0.025	0.10	2D29004	EPA 353.2	04/29/12 18:23	CCB	
Nitrate/Nitrite as N [ECL-0010] ^	0.050	J	mg/L	1	0.025	0.10	2D25001	EPA 353.2	04/25/12 09:38	CCB	
pH [ECL-0062] ^	6.8		pH Units	1	1.0	1.0	2D20021	SM4500-H/B	04/20/12 13:35	KLJ	Q
Phosphorus [7723-14-0] ^	1.4	D	mg/L	10	0.24	1.0	2D24033	EPA 365.4	04/26/12 11:39	CCB	
Sulfate as SO4 [14808-79-8] ^	5.3	B	mg/L	1	0.04	5.0	2D25008	EPA 300.0	04/26/12 01:36	CCB	J-01

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2D19042 - EPA 5030B_MS

Blank (2D19042-BLK1)

Prepared: 04/19/2012 17:18 Analyzed: 04/20/2012 13:15

1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L
1,1,1-Trichloroethane	0.12	U	1.0	ug/L
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L
1,1,2-Trichloroethane	0.14	U	1.0	ug/L
1,1-Dichloroethane	0.13	U	1.0	ug/L
1,1-Dichloroethene	0.21	U	1.0	ug/L
1,2,3-Trichloropropane	0.23	U	1.0	ug/L
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L
1,2-Dibromoethane	0.66	U	1.0	ug/L
1,2-Dichlorobenzene	0.19	U	1.0	ug/L
1,2-Dichloroethane	0.21	U	1.0	ug/L
1,2-Dichloropropane	0.10	U	1.0	ug/L
1,4-Dichlorobenzene	0.19	U	1.0	ug/L
2-Butanone	1.3	U	5.0	ug/L
2-Hexanone	0.88	U	5.0	ug/L
4-Methyl-2-pentanone	1.1	U	5.0	ug/L
Acetone	1.2	U	5.0	ug/L
Acrylonitrile	3.5	U	10	ug/L
Benzene	0.15	U	1.0	ug/L
Bromochloromethane	0.48	U	1.0	ug/L
Bromodichloromethane	0.17	U	1.0	ug/L
Bromoform	0.22	U	1.0	ug/L
Bromomethane	0.14	U	1.0	ug/L
Carbon disulfide	1.5	U	5.0	ug/L
Carbon tetrachloride	0.17	U	1.0	ug/L
Chlorobenzene	0.17	U	1.0	ug/L
Chloroethane	0.23	U	1.0	ug/L
Chloroform	0.18	U	1.0	ug/L
Chloromethane	0.13	U	1.0	ug/L
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L
Dibromochloromethane	0.17	U	1.0	ug/L
Dibromomethane	0.27	U	1.0	ug/L
Ethylbenzene	0.13	U	1.0	ug/L
Iodomethane	1.7	U	5.0	ug/L
Methylene chloride	0.23	U	1.0	ug/L
Styrene	0.11	U	1.0	ug/L
Tetrachloroethene	0.17	U	1.0	ug/L
Toluene	0.14	U	1.0	ug/L
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L
Trichloroethene	0.15	U	1.0	ug/L
Trichlorofluoromethane	0.24	U	1.0	ug/L
Vinyl acetate	0.95	U	5.0	ug/L
Vinyl chloride	0.32	U	1.0	ug/L
Xylenes (Total)	0.45	U	3.0	ug/L
Surrogate: 4-Bromofluorobenzene	53		ug/L	50.0
				106
				51-122

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2D19042 - EPA 5030B_MS

Blank (2D19042-BLK1) Continued

Prepared: 04/19/2012 17:18 Analyzed: 04/20/2012 13:15

Surrogate: Dibromofluoromethane	52	ug/L	50.0	103	68-117
Surrogate: Toluene-d8	51	ug/L	50.0	101	67-127

LCS (2D19042-BS1)

Prepared: 04/19/2012 17:18 Analyzed: 04/20/2012 13:47

1,1-Dichloroethene	20	1.0	ug/L	20.0	100	75-133
Benzene	18	1.0	ug/L	20.0	90	81-134
Chlorobenzene	19	1.0	ug/L	20.0	94	83-117
Toluene	17	1.0	ug/L	20.0	86	71-118
Trichloroethene	18	1.0	ug/L	20.0	90	82-118

Matrix Spike (2D19042-MS1)

Prepared: 04/19/2012 17:18 Analyzed: 04/20/2012 14:18

Source: C204541-14

1,1-Dichloroethene	20	1.0	ug/L	20.0	0.21 U	100	75-133
Benzene	19	1.0	ug/L	20.0	0.15 U	94	81-134
Chlorobenzene	19	1.0	ug/L	20.0	0.17 U	95	83-117
Toluene	17	1.0	ug/L	20.0	0.14 U	86	71-118
Trichloroethene	19	1.0	ug/L	20.0	0.15 U	95	82-118

Matrix Spike Dup (2D19042-MSD1)

Prepared: 04/19/2012 17:18 Analyzed: 04/20/2012 14:47

Source: C204541-14

1,1-Dichloroethene	19	1.0	ug/L	20.0	0.21 U	94	75-133	6	20
Benzene	18	1.0	ug/L	20.0	0.15 U	89	81-134	5	17
Chlorobenzene	18	1.0	ug/L	20.0	0.17 U	88	83-117	7	16
Toluene	17	1.0	ug/L	20.0	0.14 U	85	71-118	2	17
Trichloroethene	18	1.0	ug/L	20.0	0.15 U	91	82-118	5	15

Batch 2D23027 - EPA 5030B_MS

Blank (2D23027-BLK1)

Prepared: 04/23/2012 15:32 Analyzed: 04/23/2012 19:08

1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L
1,1,1-Trichloroethane	0.12	U	1.0	ug/L
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L
1,1,2-Trichloroethane	0.14	U	1.0	ug/L
1,1-Dichloroethane	0.13	U	1.0	ug/L
1,1-Dichloroethene	0.21	U	1.0	ug/L
1,2,3-Trichloropropane	0.23	U	1.0	ug/L
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L
1,2-Dibromoethane	0.66	U	1.0	ug/L
1,2-Dichlorobenzene	0.19	U	1.0	ug/L

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2D23027 - EPA 5030B_MS

Blank (2D23027-BLK1) Continued

Prepared: 04/23/2012 15:32 Analyzed: 04/23/2012 19:08

1,2-Dichloroethane	0.21	U	1.0	ug/L		
1,2-Dichloropropane	0.10	U	1.0	ug/L		
1,4-Dichlorobenzene	0.19	U	1.0	ug/L		
2-Butanone	1.3	U	5.0	ug/L		
2-Hexanone	0.88	U	5.0	ug/L		
4-Methyl-2-pentanone	1.1	U	5.0	ug/L		
Acetone	1.2	U	5.0	ug/L		
Acrylonitrile	3.5	U	10	ug/L		
Benzene	0.15	U	1.0	ug/L		
Bromochloromethane	0.48	U	1.0	ug/L		
Bromodichloromethane	0.17	U	1.0	ug/L		
Bromoform	0.22	U	1.0	ug/L		
Bromomethane	0.14	U	1.0	ug/L		
Carbon disulfide	1.5	U	5.0	ug/L		
Carbon tetrachloride	0.17	U	1.0	ug/L		
Chlorobenzene	0.17	U	1.0	ug/L		
Chloroethane	0.23	U	1.0	ug/L		
Chloroform	0.18	U	1.0	ug/L		
Chloromethane	0.13	U	1.0	ug/L		
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L		
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L		
Dibromochloromethane	0.17	U	1.0	ug/L		
Dibromomethane	0.27	U	1.0	ug/L		
Ethylbenzene	0.13	U	1.0	ug/L		
Iodomethane	1.7	U	5.0	ug/L		
Methylene chloride	0.23	U	1.0	ug/L		
Styrene	0.11	U	1.0	ug/L		
Tetrachloroethene	0.17	U	1.0	ug/L		
Toluene	0.14	U	1.0	ug/L		
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L		
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L		
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L		
Trichloroethene	0.15	U	1.0	ug/L		
Trichlorofluoromethane	0.24	U	1.0	ug/L		
Vinyl acetate	0.95	U	5.0	ug/L		
Vinyl chloride	0.32	U	1.0	ug/L		
Xylenes (Total)	0.45	U	3.0	ug/L		
Surrogate: 4-Bromofluorobenzene	53		ug/L	50.0	105	51-122
Surrogate: Dibromofluoromethane	52		ug/L	50.0	103	68-117
Surrogate: Toluene-d8	51		ug/L	50.0	102	67-127

LCS (2D23027-BS1)

Prepared: 04/23/2012 15:32 Analyzed: 04/23/2012 19:37

1,1-Dichloroethene	19	1.0	ug/L	20.0	96	75-133
Benzene	19	1.0	ug/L	20.0	95	81-134
Chlorobenzene	20	1.0	ug/L	20.0	101	83-117
Toluene	18	1.0	ug/L	20.0	91	71-118

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2D23027 - EPA 5030B_MS

LCS (2D23027-BS1) Continued

Prepared: 04/23/2012 15:32 Analyzed: 04/23/2012 19:37

Trichloroethene	20	1.0	ug/L	20.0	98	82-118
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Matrix Spike (2D23027-MS1)

Prepared: 04/23/2012 15:32 Analyzed: 04/23/2012 21:07

Source: C203943-05

1,1-Dichloroethene	21	1.0	ug/L	20.0	0.21 U	106	75-133
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Benzene	21	1.0	ug/L	20.0	0.15 U	103	81-134
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Chlorobenzene	21	1.0	ug/L	20.0	0.17 U	105	83-117
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Toluene	20	1.0	ug/L	20.0	0.14 U	98	71-118
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Trichloroethene	21	1.0	ug/L	20.0	0.15 U	105	82-118
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Matrix Spike Dup (2D23027-MSD1)

Prepared: 04/23/2012 15:32 Analyzed: 04/23/2012 21:36

Source: C203943-05

1,1-Dichloroethene	23	1.0	ug/L	20.0	0.21 U	115	75-133	8	20
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Benzene	21	1.0	ug/L	20.0	0.15 U	103	81-134	0.2	17
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Chlorobenzene	21	1.0	ug/L	20.0	0.17 U	105	83-117	0.5	16
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Toluene	20	1.0	ug/L	20.0	0.14 U	100	71-118	2	17
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Trichloroethene	21	1.0	ug/L	20.0	0.15 U	105	82-118	0.1	15
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Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2D19007 - EPA 200.7

Blank (2D19007-BLK1)

Prepared: 04/19/2012 08:42 Analyzed: 04/23/2012 10:46

Arsenic	2.80	U	10.0	ug/L
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Barium	1.00	U	10.0	ug/L
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Beryllium	0.100	U	1.00	ug/L
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Cadmium	0.360	U	1.00	ug/L
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Chromium	1.00	U	10.0	ug/L
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Cobalt	1.10	U	10.0	ug/L
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Copper	1.60	U	10.0	ug/L
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Lead	1.90	U	10.0	ug/L
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Nickel	1.80	U	10.0	ug/L
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Silver	1.90	U	10.0	ug/L
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Vanadium	1.40	U	10.0	ug/L
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Zinc	3.80	U	10.0	ug/L
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LCS (2D19007-BS1)

Prepared: 04/19/2012 08:42 Analyzed: 04/23/2012 10:49

Arsenic	200	10.0	ug/L	200	100	80-120
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Barium	208	10.0	ug/L	200	104	80-120
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Beryllium	19.9	1.00	ug/L	20.0	100	80-120
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QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2D19007 - EPA 200.7

LCS (2D19007-BS1) Continued

Prepared: 04/19/2012 08:42 Analyzed: 04/23/2012 10:49

Element	Concentration (ug/L)	Recovery (%)	Method	Limit (ug/L)	Count	Range
Cadmium	21.1	1.00	ug/L	20.0	106	80-120
Chromium	199	10.0	ug/L	200	99	80-120
Cobalt	206	10.0	ug/L	200	103	80-120
Copper	196	10.0	ug/L	200	98	80-120
Lead	201	10.0	ug/L	200	100	80-120
Nickel	208	10.0	ug/L	200	104	80-120
Silver	203	10.0	ug/L	200	102	80-120
Vanadium	202	10.0	ug/L	200	101	80-120
Zinc	207	10.0	ug/L	200	103	80-120

Matrix Spike (2D19007-MS1)

Prepared: 04/19/2012 08:42 Analyzed: 04/23/2012 10:59

Source: C204219-03

Element	Concentration (ug/L)	Recovery (%)	Method	Limit (ug/L)	Count	Range
Arsenic	191	10.0	ug/L	200	3.32	94 75-125
Barium	223	10.0	ug/L	200	21.7	101 75-125
Beryllium	19.5	1.00	ug/L	20.0	0.100 U	98 75-125
Cadmium	20.3	1.00	ug/L	20.0	0.360 U	102 75-125
Chromium	194	10.0	ug/L	200	1.00 U	97 75-125
Cobalt	200	10.0	ug/L	200	1.10 U	100 75-125
Copper	191	10.0	ug/L	200	1.60 U	96 75-125
Lead	196	10.0	ug/L	200	1.90 U	98 75-125
Nickel	201	10.0	ug/L	200	1.80 U	100 75-125
Silver	197	10.0	ug/L	200	1.90 U	98 75-125
Vanadium	197	10.0	ug/L	200	1.40 U	99 75-125
Zinc	199	10.0	ug/L	200	3.80 U	100 75-125

Matrix Spike Dup (2D19007-MSD1)

Prepared: 04/19/2012 08:42 Analyzed: 04/23/2012 11:01

Source: C204219-03

Element	Concentration (ug/L)	Recovery (%)	Method	Limit (ug/L)	Count	Range	Count	Range
Arsenic	195	10.0	ug/L	200	3.32	96 75-125	2	20
Barium	217	10.0	ug/L	200	21.7	98 75-125	3	20
Beryllium	19.6	1.00	ug/L	20.0	0.100 U	98 75-125	0.5	20
Cadmium	19.9	1.00	ug/L	20.0	0.360 U	100 75-125	2	20
Chromium	195	10.0	ug/L	200	1.00 U	97 75-125	0.3	20
Cobalt	203	10.0	ug/L	200	1.10 U	102 75-125	2	20
Copper	192	10.0	ug/L	200	1.60 U	96 75-125	0.7	20
Lead	196	10.0	ug/L	200	1.90 U	98 75-125	0.4	20
Nickel	196	10.0	ug/L	200	1.80 U	98 75-125	2	20
Silver	197	10.0	ug/L	200	1.90 U	98 75-125	0.03	20
Vanadium	198	10.0	ug/L	200	1.40 U	99 75-125	0.4	20
Zinc	195	10.0	ug/L	200	3.80 U	98 75-125	2	20

Post Spike (2D19007-PS1)

Prepared: 04/19/2012 08:42 Analyzed: 04/23/2012 11:03

Source: C204219-03

QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2D19007 - EPA 200.7

Post Spike (2D19007-PS1) Continued

Prepared: 04/19/2012 08:42 Analyzed: 04/23/2012 11:03

Source: C204219-03

Arsenic	0.196	0.0100	mg/L	0.200	0.00332	96	80-120
Barium	0.227	0.0100	mg/L	0.200	0.0217	103	80-120
Beryllium	0.0198	0.00100	mg/L	0.0200	-4.77E-6	99	80-120
Cadmium	0.0209	0.00100	mg/L	0.0200	3.87E-5	104	80-120
Chromium	0.198	0.0100	mg/L	0.200	-0.000327	99	80-120
Cobalt	0.204	0.0100	mg/L	0.200	0.000284	102	80-120
Copper	0.194	0.0100	mg/L	0.200	0.000377	97	80-120
Lead	0.199	0.0100	mg/L	0.200	-0.00187	101	80-120
Nickel	0.206	0.0100	mg/L	0.200	0.000783	102	80-120
Silver	0.209	0.0100	mg/L	0.200	-1.33E-5	104	80-120
Vanadium	0.201	0.0100	mg/L	0.200	0.000191	100	80-120
Zinc	0.206	0.0100	mg/L	0.200	-0.000738	103	80-120

Batch 2D20004 - EPA 3005A

Blank (2D20004-BLK1)

Prepared: 04/20/2012 09:00 Analyzed: 04/24/2012 09:54

Antimony	0.220	U	2.00	ug/L
Selenium	0.830	U	1.00	ug/L
Thallium	0.110	U	1.00	ug/L

LCS (2D20004-BS1)

Prepared: 04/20/2012 09:00 Analyzed: 04/24/2012 09:58

Antimony	194	2.00	ug/L	200	97	80-120
Selenium	202	1.00	ug/L	200	101	80-120
Thallium	197	1.00	ug/L	200	98	80-120

Matrix Spike (2D20004-MS1)

Prepared: 04/20/2012 09:00 Analyzed: 04/24/2012 10:06

Source: C203832-03

Antimony	193	2.00	ug/L	200	0.613	96	75-125
Selenium	198	1.00	ug/L	200	0.830 U	99	75-125
Thallium	196	1.00	ug/L	200	0.110 U	98	75-125

Matrix Spike Dup (2D20004-MSD1)

Prepared: 04/20/2012 09:00 Analyzed: 04/24/2012 10:09

Source: C203832-03

Antimony	198	2.00	ug/L	200	0.613	99	75-125	3	20
Selenium	198	1.00	ug/L	200	0.830 U	99	75-125	0.2	20
Thallium	201	1.00	ug/L	200	0.110 U	101	75-125	3	20

Post Spike (2D20004-PS1)

Prepared: 04/20/2012 09:00 Analyzed: 04/24/2012 10:13

QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2D20004 - EPA 3005A

Post Spike (2D20004-PS1) Continued

Prepared: 04/20/2012 09:00 Analyzed: 04/24/2012 10:13

Source: C203832-03

Antimony	199	2.00	ug/L	200	0.613	99	80-120
Selenium	207	1.00	ug/L	200	0.362	103	80-120
Thallium	198	1.00	ug/L	200	0.0993	99	80-120

Classical Chemistry Parameters - Quality Control

Batch 2D18022 - NO PREP

Blank (2D18022-BLK1)

Prepared & Analyzed: 04/18/2012 15:45

Biochemical Oxygen Demand	2.0	U	2.0	mg/L			B-03
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LCS (2D18022-BS1)

Prepared & Analyzed: 04/18/2012 15:45

Biochemical Oxygen Demand	200		2.0	mg/L	198	99	85-115	B-04
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Duplicate (2D18022-DUP1)

Prepared & Analyzed: 04/18/2012 15:45

Source: C203656-02

Biochemical Oxygen Demand	2.0	U	2.0	mg/L	2.0 U		25	B-04
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Batch 2D18030 - NO PREP

LCS (2D18030-BS1)

Prepared: 04/18/2012 14:00 Analyzed: 04/18/2012 14:00

Nitrite as N	1.0		0.10	mg/L	1.00	101	90-110
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Matrix Spike (2D18030-MS1)

Prepared: 04/18/2012 15:26 Analyzed: 04/18/2012 15:26

Source: C203659-01RE1

Nitrite as N	1.5		0.10	mg/L	1.00	0.51	101	90-110
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Matrix Spike Dup (2D18030-MSD1)

Prepared: 04/18/2012 15:26 Analyzed: 04/18/2012 15:26

Source: C203659-01RE1

Nitrite as N	1.5		0.10	mg/L	1.00	0.51	100	90-110	0.6	10
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Batch 2D20021 - NO PREP

LCS (2D20021-BS1)

Prepared & Analyzed: 04/20/2012 13:35

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 2D20021 - NO PREP

LCS (2D20021-BS1) Continued

Prepared & Analyzed: 04/20/2012 13:35

pH	6.9	1.0	pH Units	7.00	99	99-101
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Duplicate (2D20021-DUP1)

Prepared & Analyzed: 04/20/2012 13:35

Source: C204202-01

pH	6.7	1.0	pH Units	6.8	0.1	25
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Batch 2D24033 - Same

Blank (2D24033-BLK1)

Prepared: 04/25/2012 10:12 Analyzed: 04/26/2012 11:07

Phosphorus	0.024	U	0.10	mg/L
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LCS (2D24033-BS1)

Prepared: 04/25/2012 10:12 Analyzed: 04/26/2012 11:09

Phosphorus	1.5	0.10	mg/L	1.60	96	80-120
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Matrix Spike (2D24033-MS1)

Prepared: 04/25/2012 10:12 Analyzed: 04/26/2012 11:10

Source: C203657-02

Phosphorus	3.5	D	0.10	mg/L	0.640	3.0	90	80-120
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Matrix Spike Dup (2D24033-MSD1)

Prepared: 04/25/2012 10:12 Analyzed: 04/26/2012 11:12

Source: C203657-02

Phosphorus	3.5	D	0.10	mg/L	0.640	3.0	90	80-120	0.06	25
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Batch 2D25001 - NO PREP

Blank (2D25001-BLK1)

Prepared: 04/25/2012 06:13 Analyzed: 04/25/2012 08:43

Nitrate/Nitrite as N	0.025	U	0.10	mg/L
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LCS (2D25001-BS1)

Prepared: 04/25/2012 06:13 Analyzed: 04/25/2012 08:45

Nitrate/Nitrite as N	1.2	0.10	mg/L	1.25	97	90-110
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Matrix Spike (2D25001-MS1)

Prepared: 04/25/2012 06:13 Analyzed: 04/25/2012 08:47

Source: C203656-02

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 2D25001 - NO PREP

Matrix Spike (2D25001-MS1) Continued

Prepared: 04/25/2012 06:13 Analyzed: 04/25/2012 08:47

Source: C203656-02

Nitrate/Nitrite as N	1.7	0.10	mg/L	0.500	1.2	108	90-110
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Matrix Spike Dup (2D25001-MSD1)

Prepared: 04/25/2012 06:13 Analyzed: 04/25/2012 08:49

Source: C203656-02

Nitrate/Nitrite as N	1.6	0.10	mg/L	0.500	1.2	90	90-110	5	10
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Batch 2D25008 - NO PREP

Blank (2D25008-BLK1)

Prepared: 04/25/2012 08:17 Analyzed: 04/25/2012 20:55

Sulfate as SO4	1.7	J	5.0	mg/L			
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LCS (2D25008-BS1)

Prepared: 04/25/2012 08:17 Analyzed: 04/25/2012 21:12

Sulfate as SO4	50	B	5.0	mg/L	50.0	99	90-110
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Matrix Spike (2D25008-MS1)

Prepared: 04/25/2012 08:17 Analyzed: 04/25/2012 22:01

Source: C204219-03

Sulfate as SO4	27	B	5.0	mg/L	20.0	7.2	98	90-110
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Matrix Spike Dup (2D25008-MSD1)

Prepared: 04/25/2012 08:17 Analyzed: 04/25/2012 22:18

Source: C204219-03

Sulfate as SO4	26	B	5.0	mg/L	20.0	7.2	95	90-110	2	10
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Batch 2D25023 - Same

Blank (2D25023-BLK1)

Prepared: 04/25/2012 13:41 Analyzed: 04/25/2012 18:36

Chemical Oxygen Demand	10	U	10	mg/L			
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LCS (2D25023-BS1)

Prepared: 04/25/2012 13:41 Analyzed: 04/25/2012 18:36

Chemical Oxygen Demand	500		10	mg/L	500		101	90-110
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Matrix Spike (2D25023-MS1)

Prepared: 04/25/2012 13:41 Analyzed: 04/25/2012 18:36

QUALITY CONTROL**Classical Chemistry Parameters - Quality Control**

*Batch 2D25023 - Same***Matrix Spike (2D25023-MS1) Continued**

Prepared: 04/25/2012 13:41 Analyzed: 04/25/2012 18:36

Source: C203834-01

Chemical Oxygen Demand	690	10	mg/L	500	210	96	90-110
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Matrix Spike Dup (2D25023-MSD1)

Prepared: 04/25/2012 13:41 Analyzed: 04/25/2012 18:36

Source: C203834-01

Chemical Oxygen Demand	710	10	mg/L	500	210	99	90-110	2	10
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FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
B-03	Blank exceeds the method required oxygen depletion of < 0.2 mg/L.
B-04	The average DO uptake of the seeded controls does not meet the method required 0.6 - 1.0 mg/L.
J-01	Result is estimated due to positive results in the associated method blank.
Q	Analysis performed outside of method - specified holding time.

[illegible]

Solvent	SW	Surface Water	WW	Wastewater	A-Air	O-Other (detail in comments)	P-Precipitation	I-Ice	H-HCl	I-INHCl	S-S ₂ SO ₄	N-NaOH	O-Other (detail in comments)

Note: All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist.

APPENDIX III

Descriptive Statistics

Basic Statistics

Parameter: Barium, total

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements	336
Total Non-Detects	219 (65.1786%)
Pooled Mean	357.937
Pooled Std Dev	206.063

Compliance Meas	280
Compliance Mean	358.279
Compliance Std Dev	207.835

Background Meas	56
Background Mean	356.232
Background Std Dev	198.769

Background Locations

There are 2 background location

Location	Meas.	Non-Detects	% ND	Total
MW-15	28	19	67.8571	9737
MW-16	28	17	60.7143	10212

Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-15	347.75	225.281	0	4326	154.5
MW-16	364.714	171.992	0	5358	191.357

Compliance Locations

There are 10 compliance location

Location	Obs.	Non-Detects	% ND	Total
MW-17	28	18	64.2857	9520.8
MW-18	28	18	64.2857	9259.8
MW-19	28	17	60.7143	8844.6
MW-20	28	18	64.2857	9629.9
MW-21	28	18	64.2857	9330.4
MW-22	28	18	64.2857	10348.3
MW-23	28	18	64.2857	9585.9
MW-24	28	17	60.7143	13053
MW-25	28	23	82.1429	11602.6
MW-25d	28	18	64.2857	9142.7

Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-17	340.029	218.569	-16.2036	47.5303	4787	170.964
MW-18	330.707	231.308	-25.525	47.5303	4466	159.5
MW-19	315.879	233.266	-40.3536	47.5303	4687	167.393
MW-20	343.925	213.322	-12.3071	47.5303	4929	176.036
MW-21	333.229	227.858	-23.0036	47.5303	4623	165.107
MW-22	369.582	180.713	13.35	47.5303	5107	182.393
MW-23	342.354	215.404	-13.8786	47.5303	4881	174.321
MW-24	466.179	48.9074	109.946	47.5303	5511	196.821
MW-25	414.379	187.013	58.1464	47.5303	3710	132.5
MW-25d	326.525	237.015	-29.7071	47.5303	4231	151.107

Analysis of Variance Statistics

SS Wells	561531
SS Total	1.42247e+007

Kruskal-Wallis Statistics

Non-Detect Rank	110
Background Rank Sum	9684
Background Rank Mean	172.929
H Statistic	8.37785
H Adjusted for Ties	11.5859

Basic Statistics

Parameter: Cobalt, total

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements	336
Total Non-Detects	297 (88.3929%)
Pooled Mean	9.36229
Pooled Std Dev	2.16194

Compliance Meas.	280
Compliance Mean	9.44286
Compliance Std Dev	2.0122

Background Meas	56
Background Mean	8.95946
Background Std Dev	2.78051

Background Locations

There are 2 background location

Location	Meas.	Non-Detects	% ND	Total
MW-15	28	28	100	280
MW-16	28	21	75	221.73

Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-15	10	0	0	4172	149
MW-16	7.91893	3.67467	0	5280	188.571

Compliance Locations

There are 10 compliance location

Location	Obs.	Non-Detects	% ND	Total
MW-17	28	28	100	280
MW-18	28	16	57.1429	233.78
MW-19	28	25	89.2857	255.54
MW-20	28	26	92.8571	264.1
MW-21	28	26	92.8571	264.5
MW-22	28	27	96.4286	271.4
MW-23	28	28	100	280
MW-24	28	18	64.2857	228.68
MW-25	28	27	96.4286	282
MW-25d	28	27	96.4286	284

Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-17	10	0	1.04054	0.475677	4172	149
MW-18	8.34929	3.28467	-0.610179	0.475677	6238	222.786
MW-19	9.12643	2.58248	0.166964	0.475677	4646	165.929
MW-20	9.43214	2.10098	0.472679	0.475677	4489	160.321
MW-21	9.44643	2.0326	0.486964	0.475677	4500	160.714
MW-22	9.69286	1.62525	0.733393	0.475677	4328	154.571
MW-23	10	0	1.04054	0.475677	4172	149
MW-24	8.16714	2.79667	-0.792321	0.475677	5902	210.786
MW-25	10.0714	0.377964	1.11196	0.475677	4358	155.643
MW-25d	10.1429	0.755929	1.18339	0.475677	4359	155.679

Analysis of Variance Statistics

SS Wells	197.313
SS Total	1565.78

Kruskal-Wallis Statistics

Non-Detect Rank	149
Background Rank Sum	9452
Background Rank Mean	168.786
H Statistic	18.2597
H Adjusted for Ties	59.0236

Basic Statistics

Parameter: Copper, total

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements	336
Total Non-Detects	295 (87.7976%)
Pooled Mean	176.595
Pooled Std Dev	63.4092

Compliance Meas	280
Compliance Mean	178.212
Compliance Std Dev	61.4189

Background Meas	56
Background Mean	168.507
Background Std Dev	72.6234

Background Locations

There are 2 background location

Location	Meas.	Non-Detects	% ND	Total
MW-15	28	26	92.8571	5206.14
MW-16	28	21	75	4230.27

Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-15	185.934	51.6487	0	4476	159.857
MW-16	151.081	86.2915	0	5343	190.821

Compliance Locations

There are 10 compliance location

Location	Obs.	Non-Detects	% ND	Total
MW-17	28	26	92.8571	5204.53
MW-18	28	24	85.7143	4812.98
MW-19	28	24	85.7143	4827.12
MW-20	28	25	89.2857	5005.2
MW-21	28	24	85.7143	4812.01
MW-22	28	26	92.8571	5203.74
MW-23	28	27	96.4286	5400.8
MW-24	28	21	75	4418.45
MW-25	28	24	85.7143	4812.99
MW-25d	28	27	96.4286	5401.66

Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-17	185.876	51.8591	17.3688	14.6283	4465	159.464
MW-18	171.892	70.1145	3.38482	14.6283	4816	172
MW-19	172.397	68.9076	3.88982	14.6283	4823	172.25
MW-20	178.757	62.4497	10.2498	14.6283	4615	164.821
MW-21	171.857	70.2016	3.35018	14.6283	4806	171.643
MW-22	185.848	51.9627	17.3405	14.6283	4456	159.143
MW-23	192.886	37.6453	24.3784	14.6283	4293	153.321
MW-24	157.802	78.7324	-10.7055	14.6283	5418	193.5
MW-25	171.893	70.1168	3.38518	14.6283	4807	171.679
MW-25d	192.916	37.4827	24.4091	14.6283	4298	153.5

Analysis of Variance Statistics

SS Wells	52748
SS Total	1.34694e+006

Kruskal-Wallis Statistics

Non-Detect Rank	148
Background Rank Sum	9819
Background Rank Mean	175.339
H Statistic	4.1631
H Adjusted for Ties	12.8801

Basic Statistics

Parameter: Vanadium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements	348
Total Non-Detects	278 (79.8851%)
Pooled Mean	32.8328
Pooled Std Dev	14.6839
Compliance Meas.	290
Compliance Mean	32.3124
Compliance Std Dev	15.0584
Background Meas.	58
Background Mean	35.4345
Background Std Dev	12.4363

Background Locations

There are 2 background location

Location	Meas.	Non-Detects	% ND	Total	
MW-15	29	28	96.5517	1120.8	
MW-16	29	23	79.3103	934.4	
Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-15	38.6483	7.27926	0	4186	144.345
MW-16	32.2207	15.5069	0	4994.5	172.224

Compliance Locations

There are 10 compliance location

Location	Obs.	Non-Detects	% ND	Total		
MW-17	29	19	65.5172	782.35		
MW-18	29	22	75.8621	903.83		
MW-19	29	18	62.069	832.71		
MW-20	29	19	65.5172	813.72		
MW-21	29	26	89.6552	1045.6		
MW-22	29	28	96.5517	1121		
MW-23	29	29	100	1160		
MW-24	29	21	72.4138	869.77		
MW-25	29	26	89.6552	1046.5		
MW-25d	29	19	65.5172	795.12		
Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-17	26.9776	18.2696	-8.4569	3.22196	5630.5	194.155
MW-18	31.1666	15.9935	-4.26793	3.22196	5209	179.621
MW-19	28.7141	18.1594	-6.72034	3.22196	6161	212.448
MW-20	28.0593	16.7643	-7.37517	3.22196	5995.5	206.741
MW-21	36.0552	11.822	0.62069	3.22196	4514	155.655
MW-22	38.6552	7.24212	3.22069	3.22196	4188	144.414
MW-23	40	0	4.56552	3.22196	4045.5	139.5
MW-24	29.9921	16.5278	-5.44241	3.22196	5452.5	188.017
MW-25	36.0862	11.7318	0.651724	3.22196	4522	155.931
MW-25d	27.4179	17.6511	-8.01655	3.22196	5827.5	200.948

Analysis of Variance Statistics

SS Wells	7384.32
SS Total	74819.5

Kruskal-Wallis Statistics

Non-Detect Rank	139.5
Background Rank Sum	9180.5
Background Rank Mean	158.284
H Statistic	20.4308
H Adjusted for Ties	41.678

Basic Statistics

Parameter: Zinc, total

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Measurements	336
Total Non-Detects	277 (82.4405%)
Pooled Mean	43.4621
Pooled Std Dev	17.2592

Compliance Meas.	280
Compliance Mean	43.7248
Compliance Std Dev	17.3211

Background Meas.	56
Background Mean	42.1484
Background Std Dev	17.0387

Background Locations

There are 2 background location

Location	Meas.	Non-Detects	% ND	Total
MW-15	28	25	89.2857	1266.34
MW-16	28	21	75	1093.97

Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-15	45.2264	14.0481	0	4385	156.607
MW-16	39.0704	19.3491	0	5067	180.964

Compliance Locations

There are 10 compliance location

Location	Obs.	Non-Detects	% ND	Total
MW-17	28	22	78.5714	1130.81
MW-18	28	22	78.5714	1226.33
MW-19	28	19	67.8571	1042.73
MW-20	28	27	96.4286	1357.32
MW-21	28	23	82.1429	1187.43
MW-22	28	23	82.1429	1164.17
MW-23	28	27	96.4286	1351
MW-24	28	18	64.2857	1187.36
MW-25	28	23	82.1429	1242.19
MW-25d	28	27	96.4286	1353.6

Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-17	40.3861	18.767	-1.76232	3.97606	4880	174.286
MW-18	43.7975	16.1599	1.64911	3.97606	4935	176.25
MW-19	37.2404	20.9099	-4.90804	3.97606	5399	192.821
MW-20	48.4757	8.06576	6.32732	3.97606	4070	145.357
MW-21	42.4082	16.761	0.259821	3.97606	4727	168.821
MW-22	41.5775	18.4058	-0.570893	3.97606	4639	165.679
MW-23	48.25	9.26013	6.10161	3.97606	4033	144.036
MW-24	42.4057	28.284	0.257321	3.97606	5693	203.321
MW-25	44.3639	16.4784	2.21554	3.97606	4744	169.429
MW-25d	48.3429	8.76878	6.19446	3.97606	4044	144.429

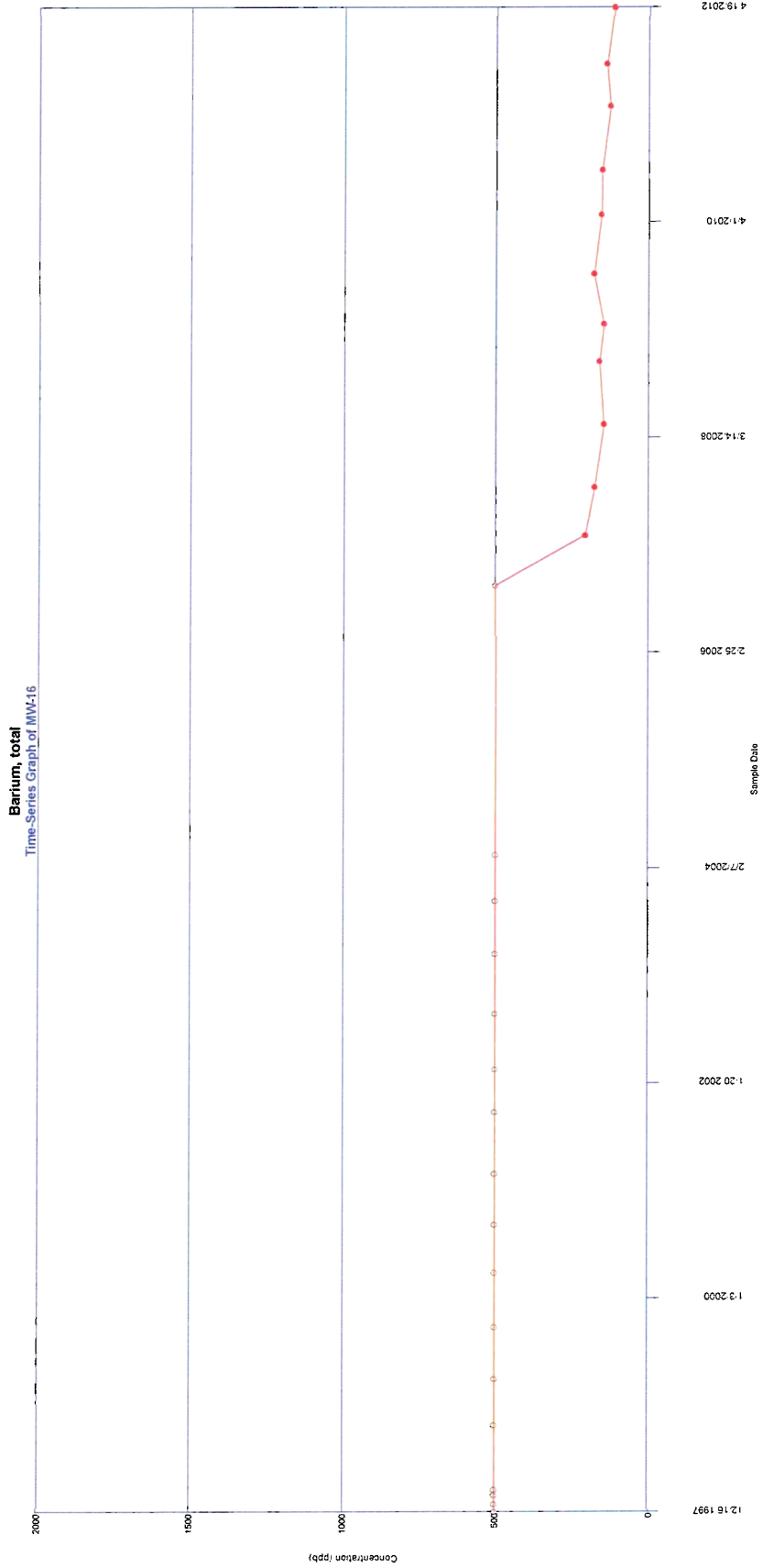
Analysis of Variance Statistics

SS Wells	4176.44
SS Total	99789.5

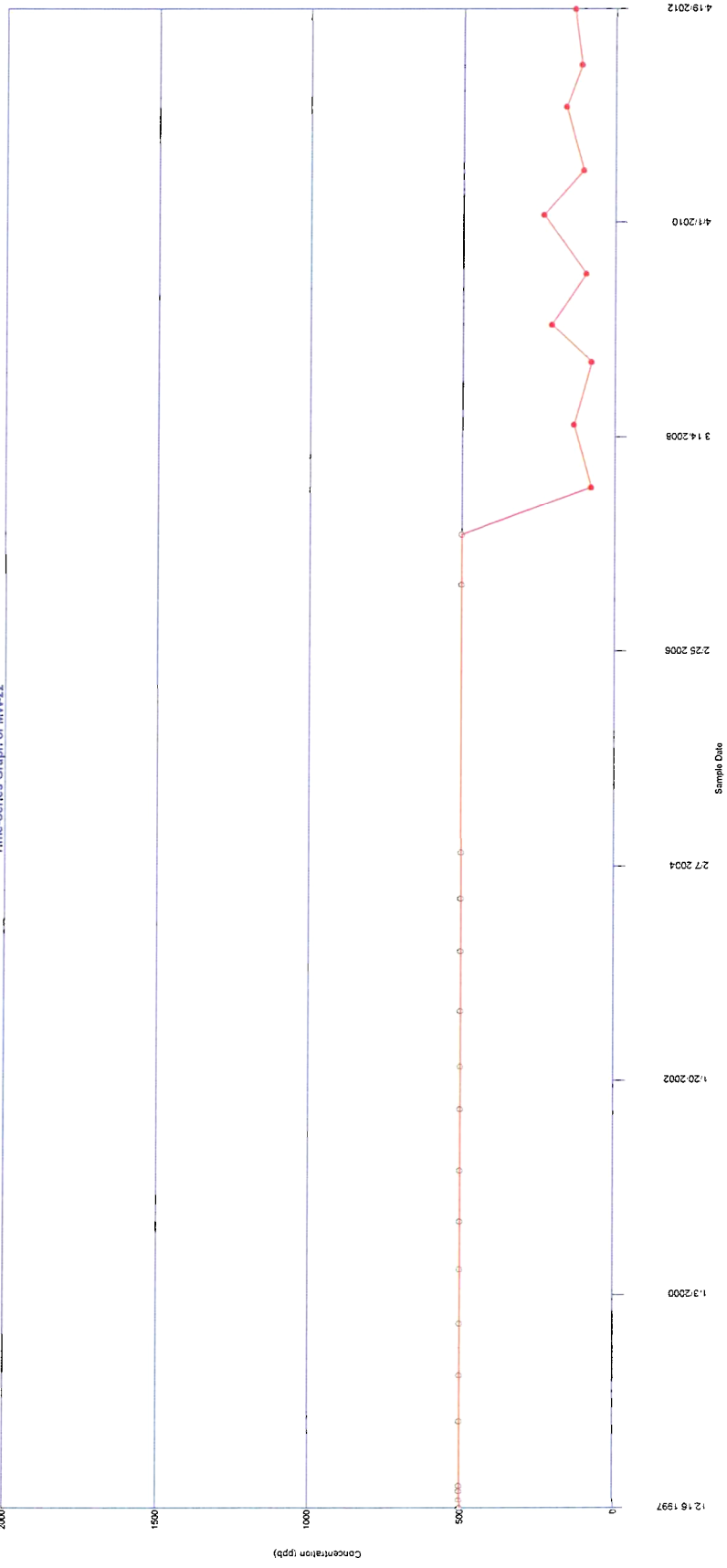
Kruskal-Wallis Statistics

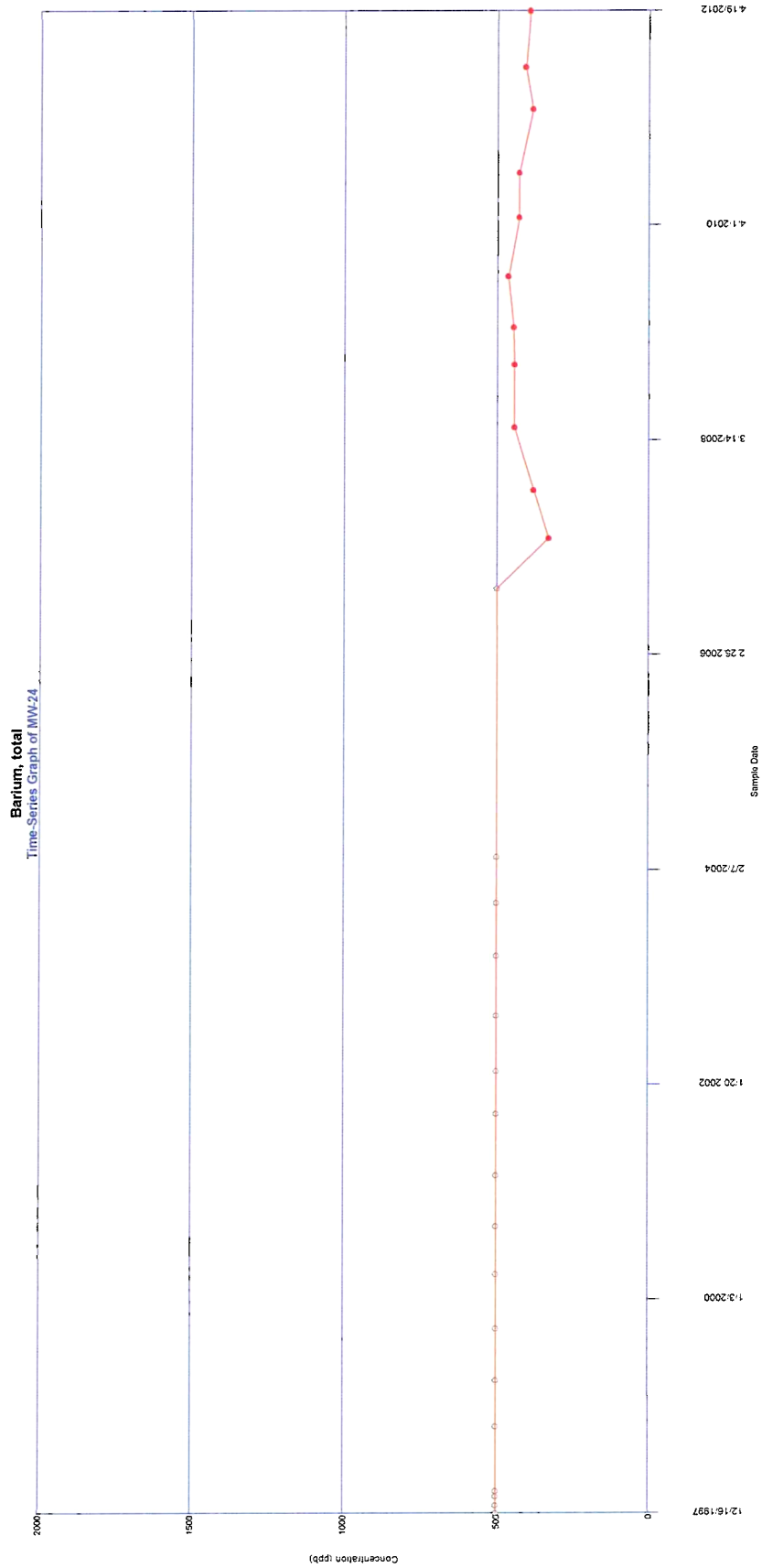
Non-Detect Rank	139
Background Rank Sum	9452
Background Rank Mean	168.786
H Statistic	10.7425
H Adjusted for Ties	24.4313

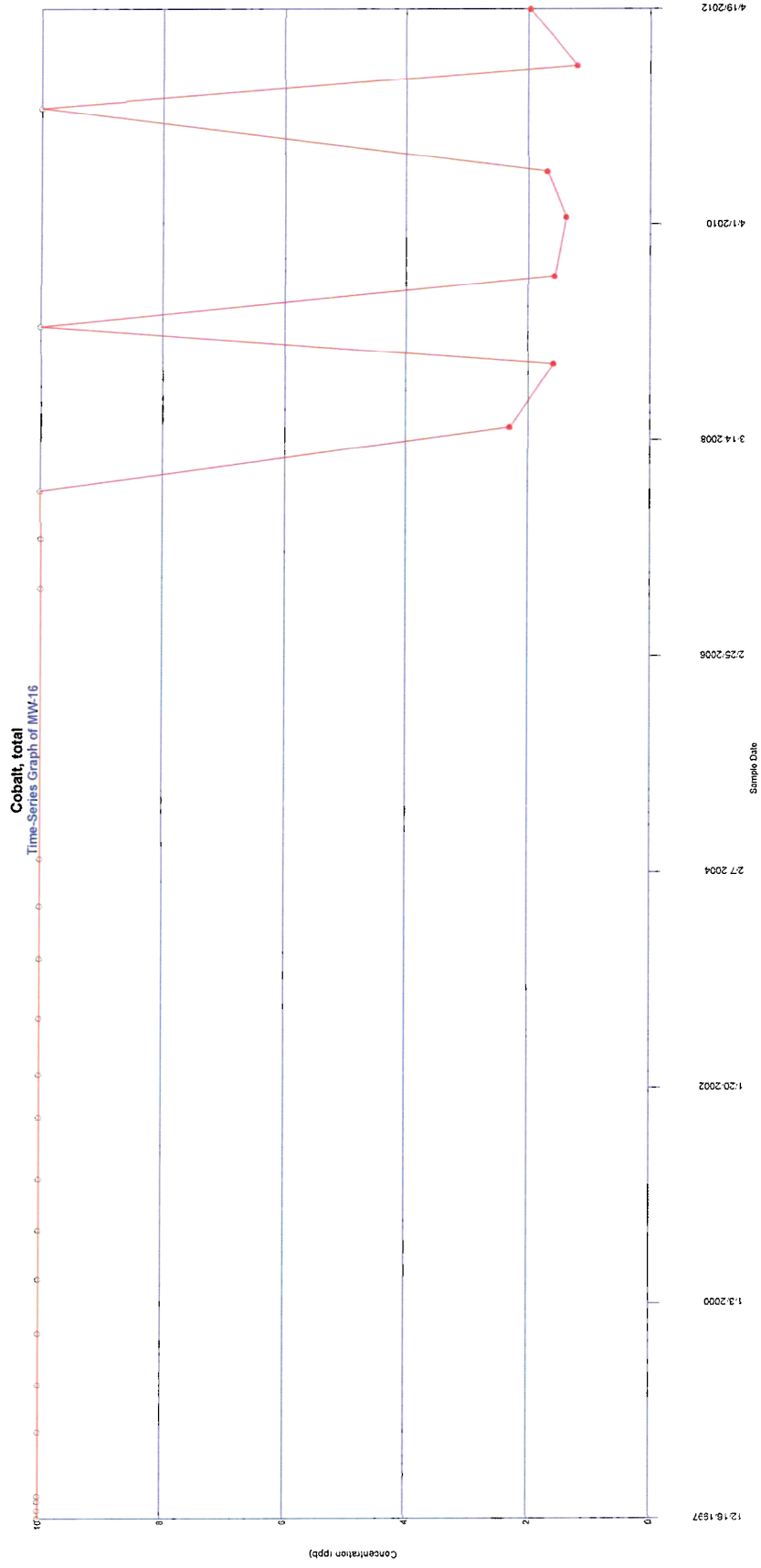
APPENDIX IV
Time vs. Concentration Graphs



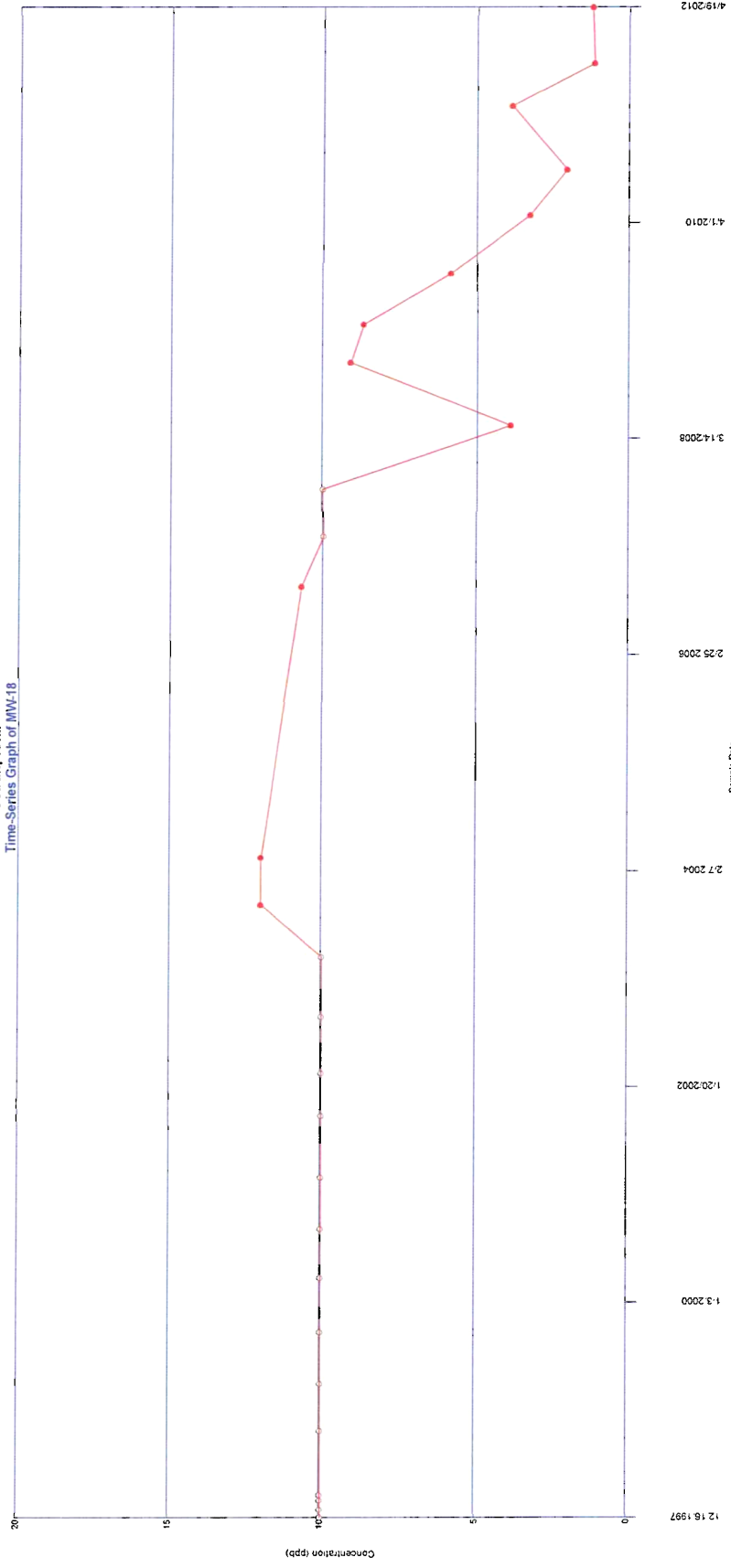
Barium, total
Time-Series Graph of MW-22

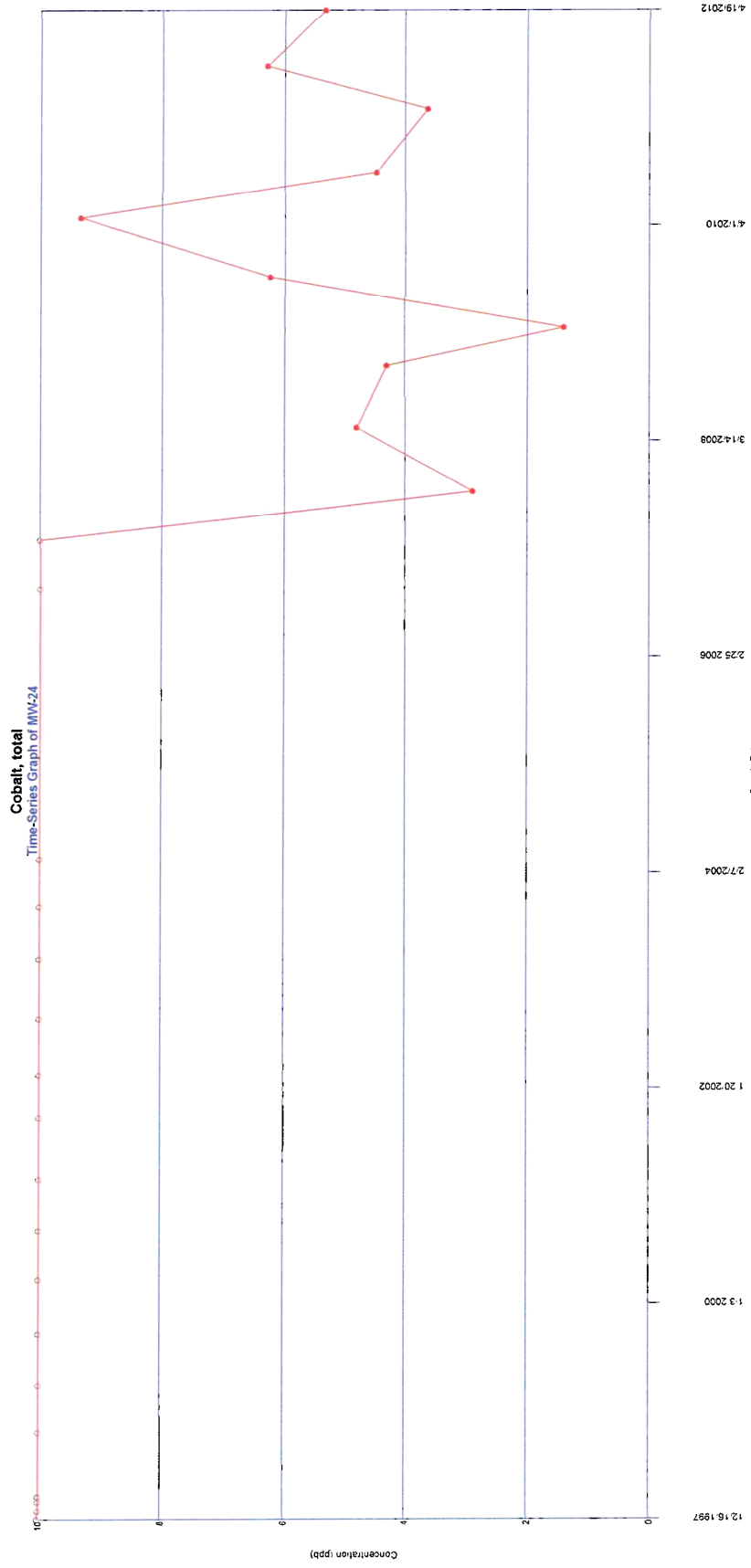




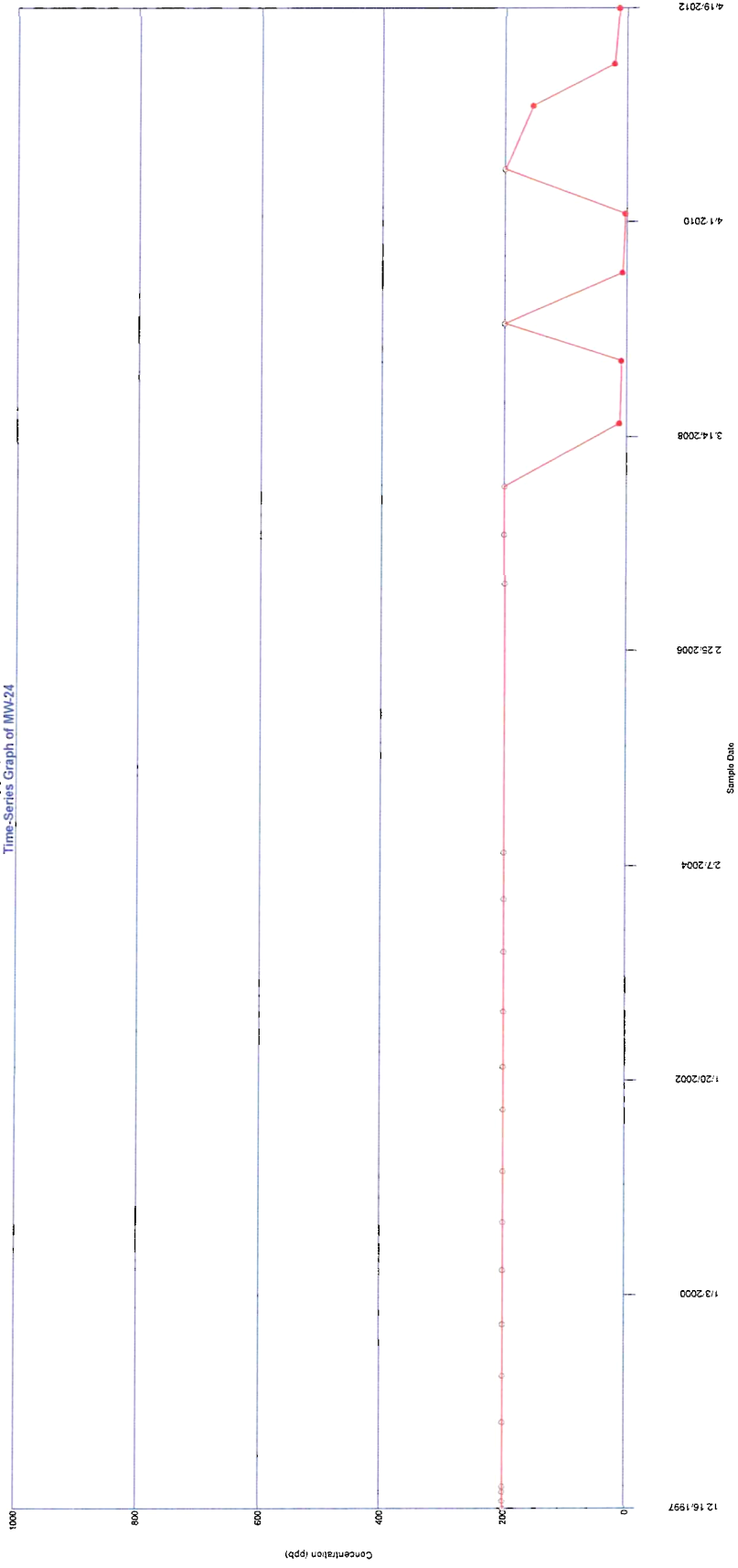


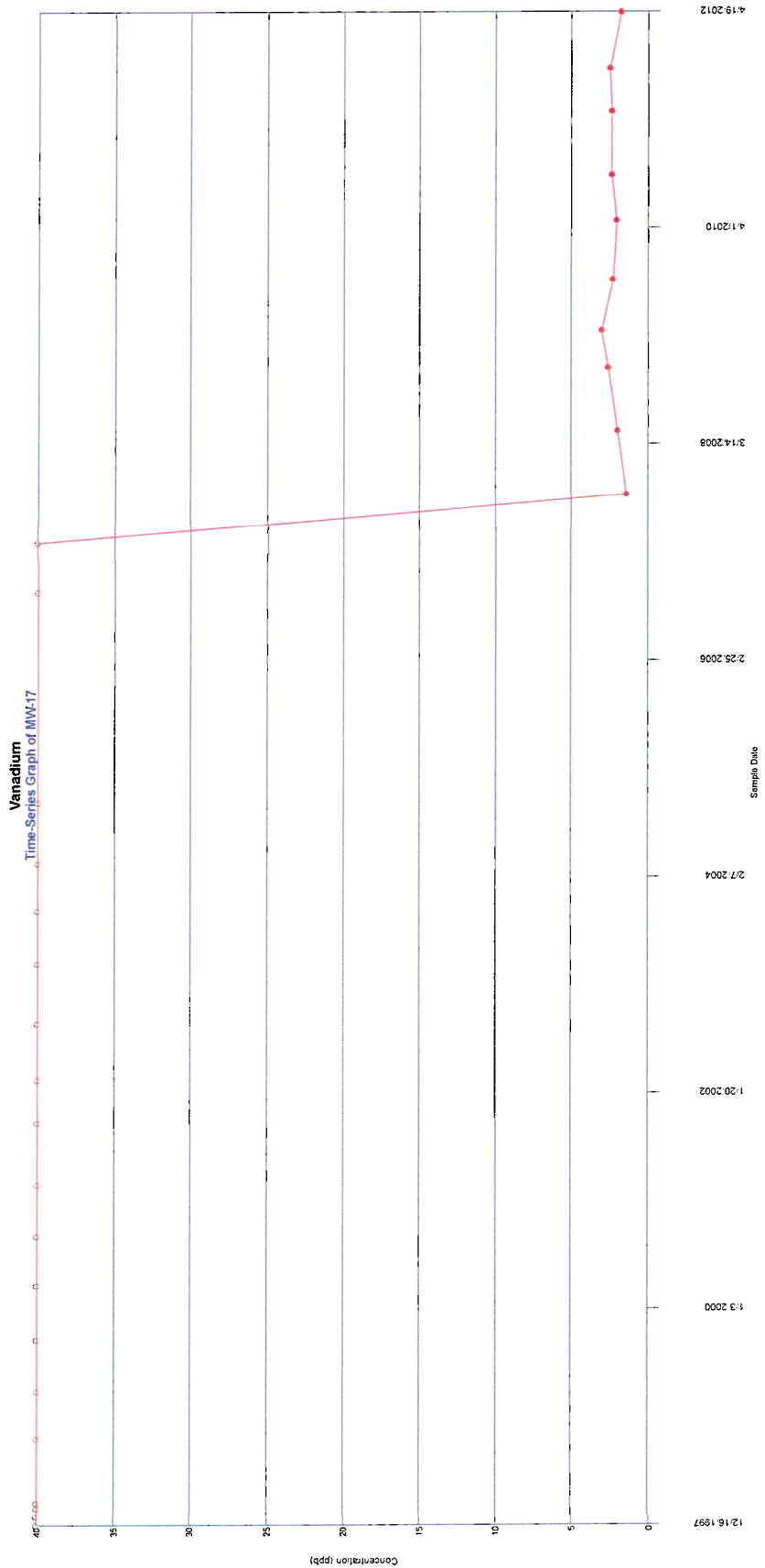
Cobalt, total
Time-Series Graph of MW-18

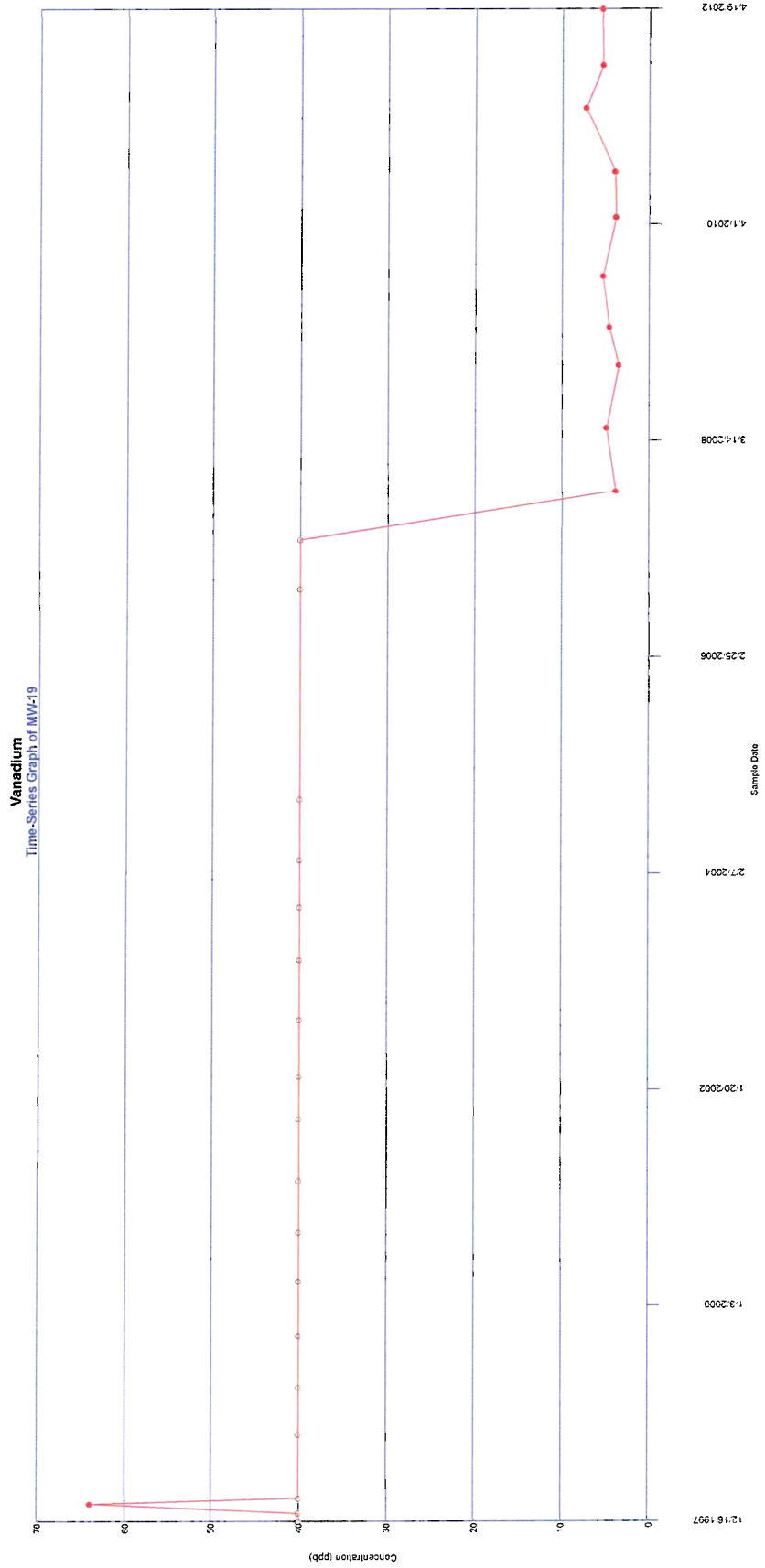


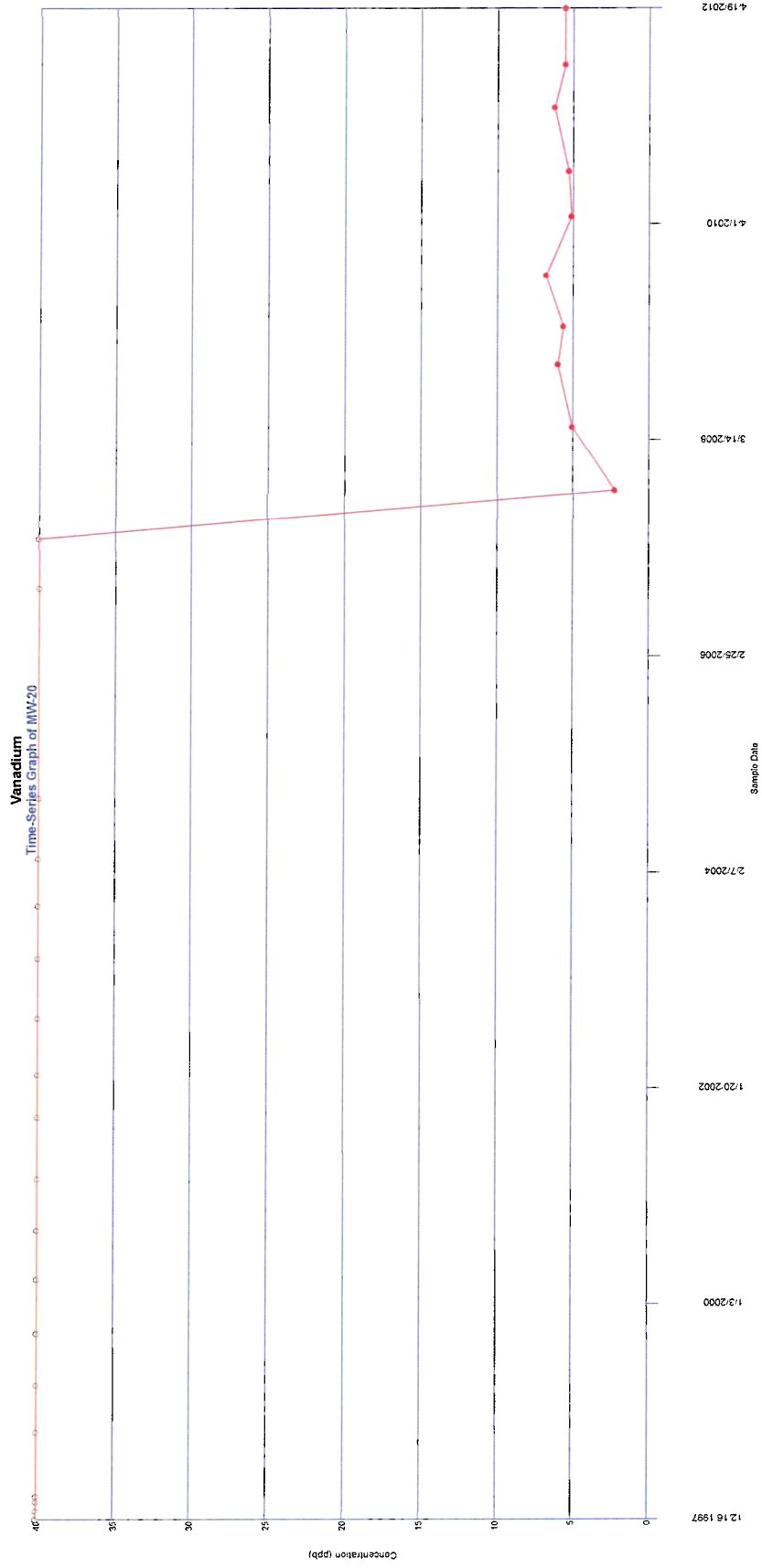


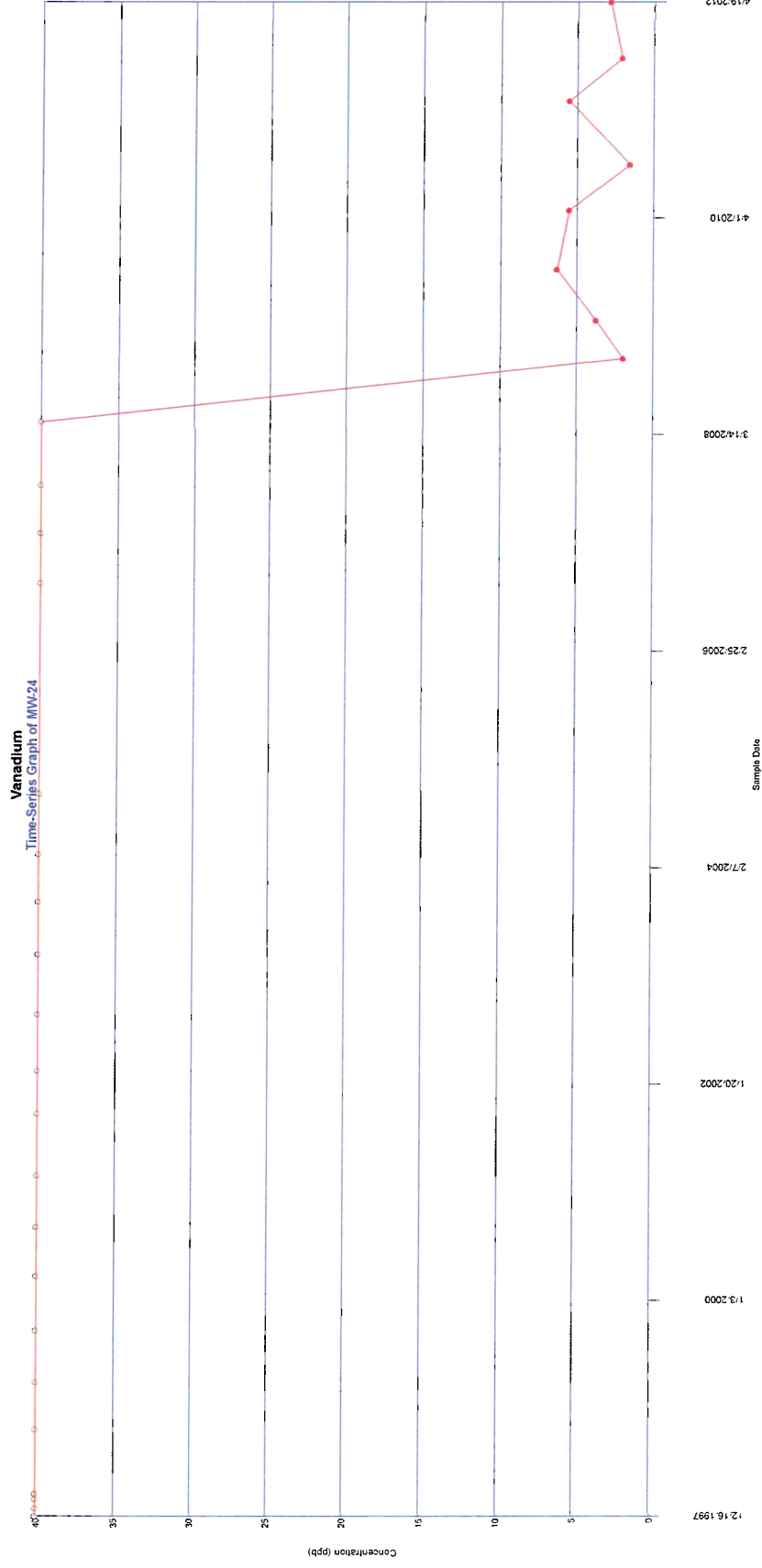
Copper, total
Time-Series Graph of MW24

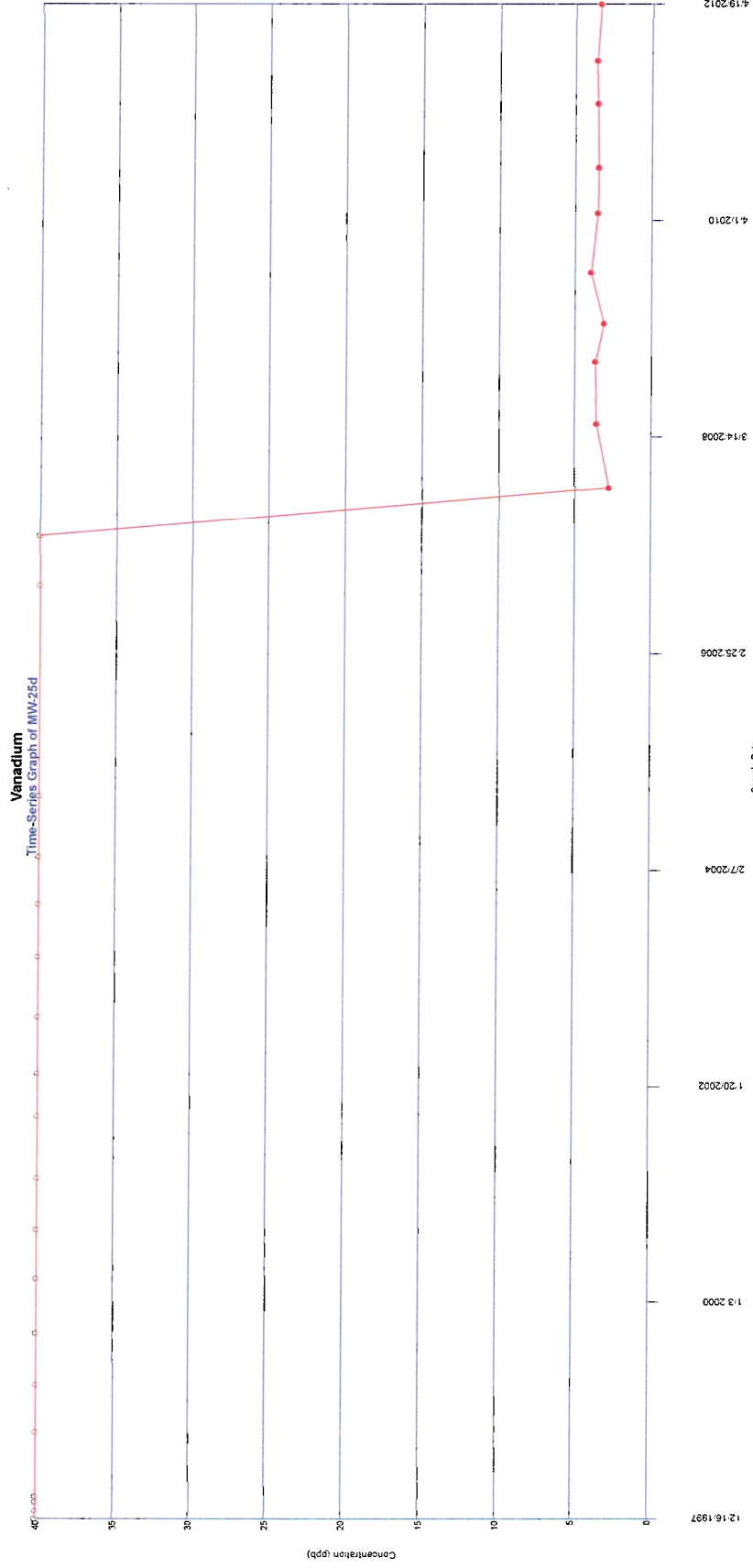




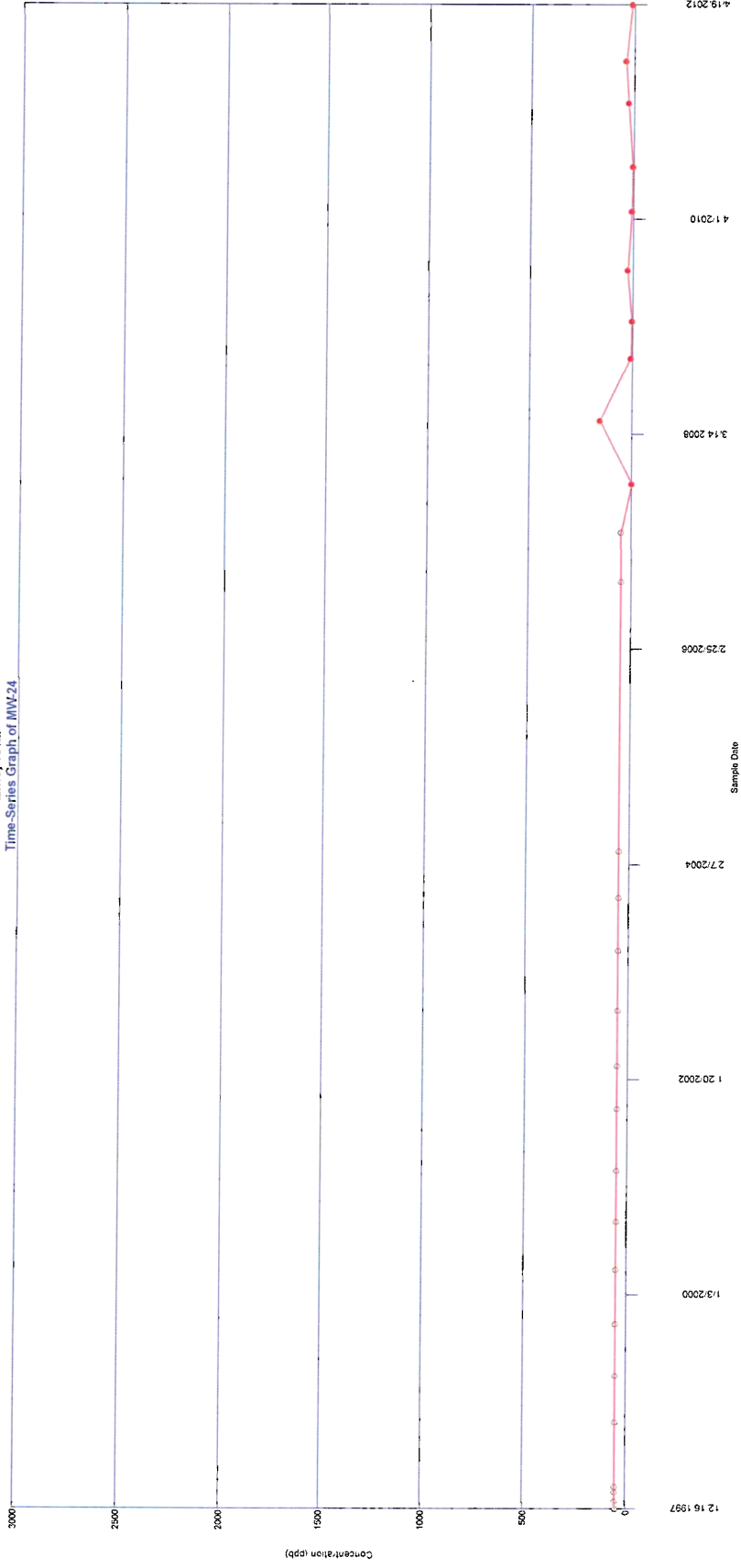








Zinc, total
Time-Series Graph of MW-24



APPENDIX V

Data Distribution Tests

Shapiro-Francia Test of Normality
Parameter: Barium, total
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit
Total Number of Measurements = 336

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	11.3	-2.87815	8.28375	-32.5231
2	12.4	-2.57583	14.9187	-64.4634
3	13	-2.40892	20.7216	-95.7795
4	13.5	-2.29036	25.9673	-126.699
5	13.5	-2.19728	30.7954	-156.363
6	13.8	-2.12007	35.2901	-185.62
7	14.1	-2.05375	39.508	-214.577
8	14.6	-1.99539	43.4896	-243.71
9	15.3	-1.94314	47.2654	-273.44
10	16.2	-1.8957	50.859	-304.151
11	17.1	-1.85218	54.2896	-335.823
12	17.2	-1.81191	57.5726	-366.988
13	19.1	-1.77438	60.721	-400.878
14	19.6	-1.7392	63.7458	-434.967
15	21.1	-1.70604	66.6564	-470.964
16	21.6	-1.67466	69.4609	-507.137
17	21.8	-1.64485	72.1665	-542.995
18	22.1	-1.61644	74.7793	-578.718
19	22.1	-1.58927	77.3051	-613.841
20	22.7	-1.56322	79.7488	-649.326
21	22.8	-1.5382	82.1148	-684.397
22	23	-1.5141	84.4073	-719.221
23	23.4	-1.49085	86.63	-754.107
24	23.6	-1.46838	88.7861	-788.761
25	23.8	-1.44663	90.8789	-823.191
26	24.1	-1.42554	92.9111	-857.546
27	24.2	-1.40507	94.8853	-891.549
28	25	-1.38517	96.804	-926.179
29	25.5	-1.36581	98.6694	-961.007
30	25.5	-1.34694	100.484	-995.354
31	25.9	-1.33462	102.265	-1029.92
32	27.6	-1.31652	103.998	-1066.26
33	27.9	-1.29884	105.685	-1102.49
34	28.1	-1.28155	107.327	-1138.51
35	28.6	-1.26464	108.927	-1174.67
36	29	-1.24809	110.484	-1210.87
37	29.9	-1.23187	112.002	-1247.7
38	30	-1.21596	113.481	-1284.18
39	30.1	-1.20036	114.921	-1320.31
40	30.2	-1.18504	116.326	-1356.1
41	30.3	-1.17	117.695	-1391.55
42	30.7	-1.15522	119.029	-1427.02
43	31	-1.14069	120.33	-1462.38
44	31.7	-1.12639	121.599	-1498.08
45	32.5	-1.11232	122.836	-1534.23
46	32.7	-1.09847	124.043	-1570.15
47	33.7	-1.08482	125.22	-1606.71
48	34.3	-1.07138	126.368	-1643.46
49	34.8	-1.05812	127.487	-1680.28
50	35.9	-1.04505	128.579	-1717.8
51	36.1	-1.03215	129.645	-1755.06
52	36.4	-1.01943	130.684	-1792.17
53	36.9	-1.00687	131.698	-1829.32
54	39.2	-0.994457	132.687	-1868.3
55	40.8	-0.982202	133.651	-1908.38
56	47.4	-0.970094	134.593	-1954.36
57	49.3	-0.958125	135.511	-2001.6
58	50.3	-0.946291	136.406	-2049.2
59	51.5	-0.93459	137.279	-2097.33
60	51.8	-0.923014	138.131	-2145.14
61	52.4	-0.911562	138.962	-2192.9
62	52.7	-0.903992	139.78	-2240.54

63	53.2	-0.892733	140.577	-2288.04
64	53.4	-0.881587	141.354	-2335.11
65	53.7	-0.87055	142.112	-2381.86
66	53.8	-0.859618	142.851	-2428.11
67	54	-0.848786	143.571	-2473.95
68	55.4	-0.838054	144.273	-2520.37
69	56.3	-0.827417	144.958	-2566.96
70	56.9	-0.816874	145.625	-2613.44
71	57.6	-0.806422	146.276	-2659.89
72	59.4	-0.796056	146.909	-2707.17
73	60	-0.785774	147.527	-2754.32
74	60.1	-0.775574	148.128	-2800.93
75	61.4	-0.765456	148.714	-2847.93
76	62.7	-0.755415	149.285	-2895.29
77	63.6	-0.745449	149.84	-2942.71
78	64.7	-0.735557	150.382	-2990.3
79	65	-0.725736	150.908	-3037.47
80	65.9	-0.715986	151.421	-3084.65
81	66.6	-0.706302	151.92	-3131.69
82	69	-0.696684	152.405	-3179.76
83	70.3	-0.687131	152.877	-3228.07
84	71.6	-0.677639	153.336	-3276.59
85	76.4	-0.668209	153.783	-3327.64
86	78.5	-0.658838	154.217	-3379.36
87	80.4	-0.649522	154.639	-3431.58
88	96.4	-0.640266	155.049	-3493.3
89	107	-0.631062	155.447	-3560.82
90	112	-0.621911	155.834	-3630.48
91	114	-0.612813	156.209	-3700.34
92	127	-0.606775	156.578	-3777.4
93	136	-0.597761	156.935	-3858.7
94	136	-0.588793	157.282	-3938.77
95	139	-0.579873	157.618	-4019.37
96	148	-0.570999	157.944	-4103.88
97	148	-0.56217	158.26	-4187.08
98	154	-0.553384	158.566	-4272.3
99	156	-0.544642	158.863	-4357.27
100	162	-0.53594	159.15	-4444.09
101	163	-0.52728	159.428	-4530.04
102	176	-0.518658	159.697	-4621.32
103	179	-0.510074	159.957	-4712.62
104	207	-0.501527	160.209	-4816.44
105	208	-0.493018	160.452	-4918.99
106	233	-0.484544	160.687	-5031.89
107	332	-0.476105	160.913	-5189.95
108	382	-0.467699	161.132	-5368.61
109	383	-0.459327	161.343	-5544.54
110	393	-0.450985	161.546	-5721.77
111	407	-0.442676	161.742	-5901.94
112	427	-0.434397	161.931	-6087.43
113	429	-0.426148	162.113	-6270.25
114	444	-0.417928	162.287	-6455.81
115	444	-0.409735	162.455	-6637.73
116	447	-0.401571	162.616	-6817.23
117	465	-0.393433	162.771	-7000.18
118	500	-0.385321	162.92	-7192.84
119	500	-0.377233	163.062	-7381.46
120	500	-0.369171	163.198	-7566.04
121	500	-0.361133	163.329	-7746.61
122	500	-0.353118	163.453	-7923.17
123	500	-0.347787	163.574	-8097.06
124	500	-0.33981	163.69	-8266.97
125	500	-0.331854	163.8	-8432.89
126	500	-0.323919	163.905	-8594.85
127	500	-0.316004	164.005	-8752.85
128	500	-0.308108	164.1	-8906.91
129	500	-0.300232	164.19	-9057.02
130	500	-0.292375	164.275	-9203.21
131	500	-0.284535	164.356	-9345.48
132	500	-0.276714	164.433	-9483.84
133	500	-0.268908	164.505	-9618.29

134	500	-0.26112	164.573	-9748.85
135	500	-0.253347	164.637	-9875.52
136	500	-0.24559	164.698	-9998.32
137	500	-0.237847	164.754	-10117.2
138	500	-0.230118	164.807	-10232.3
139	500	-0.222403	164.857	-10343.5
140	500	-0.214702	164.903	-10450.9
141	500	-0.207012	164.946	-10554.4
142	500	-0.199336	164.985	-10654
143	500	-0.191671	165.022	-10749.9
144	500	-0.184017	165.056	-10841.9
145	500	-0.176374	165.087	-10930.1
146	500	-0.168741	165.116	-11014.4
147	500	-0.161119	165.142	-11095
148	500	-0.153505	165.165	-11171.7
149	500	-0.1459	165.186	-11244.7
150	500	-0.138305	165.206	-11313.8
151	500	-0.130716	165.223	-11379.2
152	500	-0.123135	165.238	-11440.8
153	500	-0.115562	165.251	-11498.5
154	500	-0.110516	165.263	-11553.8
155	500	-0.102953	165.274	-11605.3
156	500	-0.0953969	165.283	-11653
157	500	-0.0878447	165.291	-11696.9
158	500	-0.0802981	165.297	-11737.1
159	500	-0.0727562	165.303	-11773.4
160	500	-0.0652187	165.307	-11806
161	500	-0.0576847	165.31	-11834.9
162	500	-0.0501541	165.313	-11860
163	500	-0.0426257	165.314	-11881.3
164	500	-0.0350997	165.316	-11898.8
165	500	-0.0275759	165.316	-11912.6
166	500	-0.0200544	165.317	-11922.6
167	500	-0.0125328	165.317	-11928.9
168	500	-0.00501359	165.317	-11931.4
169	500	0.00501359	165.317	-11928.9
170	500	0.0125328	165.317	-11922.6
171	500	0.0200544	165.318	-11912.6
172	500	0.0275759	165.318	-11898.8
173	500	0.0350997	165.32	-11881.3
174	500	0.0426257	165.321	-11860
175	500	0.0501541	165.324	-11834.9
176	500	0.0576847	165.327	-11806
177	500	0.0652187	165.332	-11773.4
178	500	0.0727562	165.337	-11737.1
179	500	0.0802981	165.343	-11696.9
180	500	0.0878447	165.351	-11653
181	500	0.0953969	165.36	-11605.3
182	500	0.102953	165.371	-11553.8
183	500	0.110516	165.383	-11498.5
184	500	0.115562	165.396	-11440.8
185	500	0.123135	165.411	-11379.2
186	500	0.130716	165.428	-11313.8
187	500	0.138305	165.448	-11244.7
188	500	0.1459	165.469	-11171.7
189	500	0.153505	165.492	-11095
190	500	0.161119	165.518	-11014.4
191	500	0.168741	165.547	-10930.1
192	500	0.176374	165.578	-10841.9
193	500	0.184017	165.612	-10749.9
194	500	0.191671	165.649	-10654
195	500	0.199336	165.688	-10554.4
196	500	0.207012	165.731	-10450.9
197	500	0.214702	165.777	-10343.5
198	500	0.222403	165.827	-10232.3
199	500	0.230118	165.88	-10117.2
200	500	0.237847	165.936	-9998.32
201	500	0.24559	165.997	-9875.52
202	500	0.253347	166.061	-9748.85
203	500	0.26112	166.129	-9618.29
204	500	0.268908	166.201	-9483.84

205	500	0.276714	166.278	-9345.48
206	500	0.284535	166.359	-9203.21
207	500	0.292375	166.444	-9057.02
208	500	0.300232	166.534	-8906.91
209	500	0.308108	166.629	-8752.85
210	500	0.316004	166.729	-8594.85
211	500	0.323919	166.834	-8432.89
212	500	0.331854	166.944	-8266.97
213	500	0.33981	167.06	-8097.06
214	500	0.347787	167.181	-7923.17
215	500	0.353118	167.305	-7746.61
216	500	0.361133	167.436	-7566.04
217	500	0.369171	167.572	-7381.46
218	500	0.377233	167.714	-7192.84
219	500	0.385321	167.863	-7000.18
220	500	0.393433	168.018	-6803.46
221	500	0.401571	168.179	-6602.68
222	500	0.409735	168.347	-6397.81
223	500	0.417928	168.521	-6188.84
224	500	0.426148	168.703	-5975.77
225	500	0.434397	168.892	-5758.57
226	500	0.442676	169.088	-5537.23
227	500	0.450985	169.291	-5311.74
228	500	0.459327	169.502	-5082.08
229	500	0.467699	169.721	-4848.23
230	500	0.476105	169.948	-4610.18
231	500	0.484544	170.182	-4367.9
232	500	0.493018	170.425	-4121.4
233	500	0.501527	170.677	-3870.63
234	500	0.510074	170.937	-3615.59
235	500	0.518658	171.206	-3356.27
236	500	0.52728	171.484	-3092.63
237	500	0.53594	171.771	-2824.66
238	500	0.544642	172.068	-2552.34
239	500	0.553384	172.374	-2275.64
240	500	0.56217	172.69	-1994.56
241	500	0.570999	173.016	-1709.06
242	500	0.579873	173.353	-1419.12
243	500	0.588793	173.699	-1124.73
244	500	0.597761	174.057	-825.845
245	500	0.606775	174.425	-522.458
246	500	0.612813	174.8	-216.051
247	500	0.621911	175.187	94.9047
248	500	0.631062	175.585	410.436
249	500	0.640266	175.995	730.569
250	500	0.649522	176.417	1055.33
251	500	0.658838	176.851	1384.75
252	500	0.668209	177.298	1718.85
253	500	0.677639	177.757	2057.67
254	500	0.687131	178.229	2401.24
255	500	0.696684	178.714	2749.58
256	500	0.706302	179.213	3102.73
257	500	0.715986	179.726	3460.73
258	500	0.725736	180.253	3823.59
259	500	0.735557	180.794	4191.37
260	500	0.745449	181.349	4564.1
261	500	0.755415	181.92	4941.8
262	500	0.765456	182.506	5324.53
263	500	0.775574	183.107	5712.32
264	500	0.785774	183.725	6105.21
265	500	0.796056	184.359	6503.23
266	500	0.806422	185.009	6906.44
267	500	0.816874	185.676	7314.88
268	500	0.827417	186.361	7728.59
269	500	0.838054	187.063	8147.62
270	500	0.848786	187.784	8572.01
271	500	0.859618	188.522	9001.82
272	500	0.87055	189.28	9437.09
273	500	0.881587	190.058	9877.89
274	500	0.892733	190.854	10324.3
275	500	0.903992	191.672	10776.2

276	500	0.911562	192.503	11232
277	500	0.923014	193.355	11693.5
278	500	0.93459	194.228	12160.8
279	500	0.946291	195.124	12634
280	500	0.958125	196.042	13113
281	500	0.970094	196.983	13598.1
282	500	0.982202	197.947	14089.2
283	500	0.994457	198.936	14586.4
284	500	1.00687	199.95	15089.9
285	500	1.01943	200.989	15599.6
286	500	1.03215	202.055	16115.6
287	500	1.04505	203.147	16638.2
288	500	1.05812	204.266	17167.2
289	500	1.07138	205.414	17702.9
290	500	1.08482	206.591	18245.3
291	500	1.09847	207.798	18794.6
292	500	1.11232	209.035	19350.7
293	500	1.12639	210.304	19913.9
294	500	1.14069	211.605	20484.3
295	500	1.15522	212.939	21061.9
296	500	1.17	214.308	21646.9
297	500	1.18504	215.713	22239.4
298	500	1.20036	217.154	22839.6
299	500	1.21596	218.632	23447.6
300	500	1.23187	220.15	24063.5
301	500	1.24809	221.707	24687.5
302	500	1.26464	223.307	25319.9
303	500	1.28155	224.949	25960.6
304	500	1.29884	226.636	26610
305	500	1.31652	228.369	27268.3
306	500	1.33462	230.15	27935.6
307	500	1.34694	231.965	28609.1
308	500	1.36581	233.83	29292
309	500	1.38517	235.749	29984.6
310	500	1.40507	237.723	30687.1
311	500	1.42554	239.755	31399.9
312	500	1.44663	241.848	32123.2
313	500	1.46838	244.004	32857.4
314	500	1.49085	246.227	33602.8
315	500	1.5141	248.519	34359.9
316	500	1.5382	250.885	35129
317	500	1.56322	253.329	35910.6
318	500	1.58927	255.855	36705.2
319	500	1.61644	258.468	37513.4
320	500	1.64485	261.173	38335.9
321	500	1.67466	263.978	39173.2
322	500	1.70604	266.888	40026.2
323	500	1.7392	269.913	40895.8
324	500	1.77438	273.061	41783
325	500	1.81191	276.344	42689
326	500	1.85218	279.775	43615
327	500	1.8957	283.369	44562.9
328	500	1.94314	287.144	45534.5
329	500	1.99539	291.126	46532.2
330	500	2.05375	295.344	47559
331	500	2.12007	299.839	48619.1
332	500	2.19728	304.667	49717.7
333	500	2.29036	309.912	50862.9
334	500	2.40892	315.715	52067.4
335	500	2.57583	322.35	53355.3
336	500	2.87815	330.634	54794.3

Data Set Standard Deviation = 206.063
 Numerator = 3.00242e+009
 Denominator = 4.70318e+009
 W Statistic = 0.638381 = 3.00242e+009 / 4.70318e+009

5% Critical value of 0.976 exceeds 0.638381
Evidence of non-normality at 95% level of significance

Shapiro-Francia Test of Normality
Parameter: Cobalt, total
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit
Total Number of Measurements = 336

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	1.1	-2.87815	8.28375	-3.16597
2	1.15	-2.57583	14.9187	-6.12818
3	1.2	-2.40892	20.7216	-9.01888
4	1.2	-2.29036	25.9673	-11.7673
5	1.2	-2.19728	30.7954	-14.4041
6	1.34	-2.12007	35.2901	-17.245
7	1.39	-2.05375	39.508	-20.0997
8	1.4	-1.99539	43.4896	-22.8932
9	1.4	-1.94314	47.2654	-25.6136
10	1.58	-1.8957	50.859	-28.6088
11	1.6	-1.85218	54.2896	-31.5723
12	1.7	-1.81191	57.5726	-34.6525
13	1.96	-1.77438	60.721	-38.1303
14	2.04	-1.7392	63.7458	-41.6783
15	2.2	-1.70604	66.6564	-45.4316
16	2.3	-1.67466	69.4609	-49.2833
17	2.3	-1.64485	72.1665	-53.0665
18	2.9	-1.61644	74.7793	-57.7541
19	3	-1.58927	77.3051	-62.5219
20	3	-1.56322	79.7488	-67.2116
21	3.25	-1.5382	82.1148	-72.2108
22	3.64	-1.5141	84.4073	-77.7221
23	3.85	-1.49085	86.63	-83.4619
24	3.9	-1.46838	88.7861	-89.1886
25	4.3	-1.44663	90.8789	-95.4091
26	4.47	-1.42554	92.9111	-101.781
27	4.8	-1.40507	94.8853	-108.526
28	5.33	-1.38517	96.804	-115.909
29	5.89	-1.36581	98.6694	-123.953
30	6.23	-1.34694	100.484	-132.345
31	6.28	-1.33462	102.265	-140.726
32	8.7	-1.31652	103.998	-152.18
33	9.1	-1.29884	105.685	-163.999
34	9.33	-1.28155	107.327	-175.956
35	10	-1.26464	108.927	-188.602
36	10	-1.24809	110.484	-201.083
37	10	-1.23187	112.002	-213.402
38	10	-1.21596	113.481	-225.562
39	10	-1.20036	114.921	-237.565
40	10	-1.18504	116.326	-249.416
41	10	-1.17	117.695	-261.116
42	10	-1.15522	119.029	-272.668
43	10	-1.14069	120.33	-284.075
44	10	-1.12639	121.599	-295.339
45	10	-1.11232	122.836	-306.462
46	10	-1.09847	124.043	-317.447
47	10	-1.08482	125.22	-328.295
48	10	-1.07138	126.368	-339.009
49	10	-1.05812	127.487	-349.59
50	10	-1.04505	128.579	-360.04
51	10	-1.03215	129.645	-370.362
52	10	-1.01943	130.684	-380.556
53	10	-1.00687	131.698	-390.625
54	10	-0.994457	132.687	-400.569
55	10	-0.982202	133.651	-410.391
56	10	-0.970094	134.593	-420.092
57	10	-0.958125	135.511	-429.674
58	10	-0.946291	136.406	-439.136
59	10	-0.93459	137.279	-448.482
60	10	-0.923014	138.131	-457.713
61	10	-0.911562	138.962	-466.828
62	10	-0.903992	139.78	-475.868

63	10	-0.892733	140.577	-484.795
64	10	-0.881587	141.354	-493.611
65	10	-0.87055	142.112	-502.317
66	10	-0.859618	142.851	-510.913
67	10	-0.848786	143.571	-519.401
68	10	-0.838054	144.273	-527.781
69	10	-0.827417	144.958	-536.055
70	10	-0.816874	145.625	-544.224
71	10	-0.806422	146.276	-552.288
72	10	-0.796056	146.909	-560.249
73	10	-0.785774	147.527	-568.107
74	10	-0.775574	148.128	-575.862
75	10	-0.765456	148.714	-583.517
76	10	-0.755415	149.285	-591.071
77	10	-0.745449	149.84	-598.526
78	10	-0.735557	150.382	-605.881
79	10	-0.725736	150.908	-613.139
80	10	-0.715986	151.421	-620.298
81	10	-0.706302	151.92	-627.362
82	10	-0.696684	152.405	-634.328
83	10	-0.687131	152.877	-641.2
84	10	-0.677639	153.336	-647.976
85	10	-0.668209	153.783	-654.658
86	10	-0.658838	154.217	-661.247
87	10	-0.649522	154.639	-667.742
88	10	-0.640266	155.049	-674.144
89	10	-0.631062	155.447	-680.455
90	10	-0.621911	155.834	-686.674
91	10	-0.612813	156.209	-692.802
92	10	-0.606775	156.578	-698.87
93	10	-0.597761	156.935	-704.848
94	10	-0.588793	157.282	-710.736
95	10	-0.579873	157.618	-716.534
96	10	-0.570999	157.944	-722.244
97	10	-0.56217	158.26	-727.866
98	10	-0.553384	158.566	-733.4
99	10	-0.544642	158.863	-738.846
100	10	-0.53594	159.15	-744.206
101	10	-0.52728	159.428	-749.478
102	10	-0.518658	159.697	-754.665
103	10	-0.510074	159.957	-759.766
104	10	-0.501527	160.209	-764.781
105	10	-0.493018	160.452	-769.711
106	10	-0.484544	160.687	-774.557
107	10	-0.476105	160.913	-779.318
108	10	-0.467699	161.132	-783.995
109	10	-0.459327	161.343	-788.588
110	10	-0.450985	161.546	-793.098
111	10	-0.442676	161.742	-797.525
112	10	-0.434397	161.931	-801.869
113	10	-0.426148	162.113	-806.13
114	10	-0.417928	162.287	-810.309
115	10	-0.409735	162.455	-814.407
116	10	-0.401571	162.616	-818.422
117	10	-0.393433	162.771	-822.357
118	10	-0.385321	162.92	-826.21
119	10	-0.377233	163.062	-829.982
120	10	-0.369171	163.198	-833.674
121	10	-0.361133	163.329	-837.285
122	10	-0.353118	163.453	-840.816
123	10	-0.347787	163.574	-844.294
124	10	-0.33981	163.69	-847.692
125	10	-0.331854	163.8	-851.011
126	10	-0.323919	163.905	-854.25
127	10	-0.316004	164.005	-857.41
128	10	-0.308108	164.1	-860.491
129	10	-0.300232	164.19	-863.494
130	10	-0.292375	164.275	-866.417
131	10	-0.284535	164.356	-869.263
132	10	-0.276714	164.433	-872.03
133	10	-0.268908	164.505	-874.719

134	10	-0.26112	164.573	-877.33
135	10	-0.253347	164.637	-879.864
136	10	-0.24559	164.698	-882.319
137	10	-0.237847	164.754	-884.698
138	10	-0.230118	164.807	-886.999
139	10	-0.222403	164.857	-889.223
140	10	-0.214702	164.903	-891.37
141	10	-0.207012	164.946	-893.44
142	10	-0.199336	164.985	-895.434
143	10	-0.191671	165.022	-897.35
144	10	-0.184017	165.056	-899.191
145	10	-0.176374	165.087	-900.954
146	10	-0.168741	165.116	-902.642
147	10	-0.161119	165.142	-904.253
148	10	-0.153505	165.165	-905.788
149	10	-0.1459	165.186	-907.247
150	10	-0.138305	165.206	-908.63
151	10	-0.130716	165.223	-909.937
152	10	-0.123135	165.238	-911.169
153	10	-0.115562	165.251	-912.324
154	10	-0.110516	165.263	-913.429
155	10	-0.102953	165.274	-914.459
156	10	-0.0953969	165.283	-915.413
157	10	-0.0878447	165.291	-916.291
158	10	-0.0802981	165.297	-917.094
159	10	-0.0727562	165.303	-917.822
160	10	-0.0652187	165.307	-918.474
161	10	-0.0576847	165.31	-919.051
162	10	-0.0501541	165.313	-919.552
163	10	-0.0426257	165.314	-919.979
164	10	-0.0350997	165.316	-920.33
165	10	-0.0275759	165.316	-920.605
166	10	-0.0200544	165.317	-920.806
167	10	-0.0125328	165.317	-920.931
168	10	-0.00501359	165.317	-920.981
169	10	0.00501359	165.317	-920.931
170	10	0.0125328	165.317	-920.806
171	10	0.0200544	165.318	-920.605
172	10	0.0275759	165.318	-920.33
173	10	0.0350997	165.32	-919.979
174	10	0.0426257	165.321	-919.552
175	10	0.0501541	165.324	-919.051
176	10	0.0576847	165.327	-918.474
177	10	0.0652187	165.332	-917.822
178	10	0.0727562	165.337	-917.094
179	10	0.0802981	165.343	-916.291
180	10	0.0878447	165.351	-915.413
181	10	0.0953969	165.36	-914.459
182	10	0.102953	165.371	-913.429
183	10	0.110516	165.383	-912.324
184	10	0.115562	165.396	-911.169
185	10	0.123135	165.411	-909.937
186	10	0.130716	165.428	-908.63
187	10	0.138305	165.448	-907.247
188	10	0.1459	165.469	-905.788
189	10	0.153505	165.492	-904.253
190	10	0.161119	165.518	-902.642
191	10	0.168741	165.547	-900.954
192	10	0.176374	165.578	-899.191
193	10	0.184017	165.612	-897.35
194	10	0.191671	165.649	-895.434
195	10	0.199336	165.688	-893.44
196	10	0.207012	165.731	-891.37
197	10	0.214702	165.777	-889.223
198	10	0.222403	165.827	-886.999
199	10	0.230118	165.88	-884.698
200	10	0.237847	165.936	-882.319
201	10	0.24559	165.997	-879.864
202	10	0.253347	166.061	-877.33
203	10	0.26112	166.129	-874.719
204	10	0.268908	166.201	-872.03

205	10	0.276714	166.278	-869.263
206	10	0.284535	166.359	-866.417
207	10	0.292375	166.444	-863.494
208	10	0.300232	166.534	-860.491
209	10	0.308108	166.629	-857.41
210	10	0.316004	166.729	-854.25
211	10	0.323919	166.834	-851.011
212	10	0.331854	166.944	-847.692
213	10	0.33981	167.06	-844.294
214	10	0.347787	167.181	-840.816
215	10	0.353118	167.305	-837.285
216	10	0.361133	167.436	-833.674
217	10	0.369171	167.572	-829.982
218	10	0.377233	167.714	-826.21
219	10	0.385321	167.863	-822.357
220	10	0.393433	168.018	-818.422
221	10	0.401571	168.179	-814.407
222	10	0.409735	168.347	-810.309
223	10	0.417928	168.521	-806.13
224	10	0.426148	168.703	-801.869
225	10	0.434397	168.892	-797.525
226	10	0.442676	169.088	-793.098
227	10	0.450985	169.291	-788.588
228	10	0.459327	169.502	-783.995
229	10	0.467699	169.721	-779.318
230	10	0.476105	169.948	-774.557
231	10	0.484544	170.182	-769.711
232	10	0.493018	170.425	-764.781
233	10	0.501527	170.677	-759.766
234	10	0.510074	170.937	-754.665
235	10	0.518658	171.206	-749.478
236	10	0.52728	171.484	-744.206
237	10	0.53594	171.771	-738.846
238	10	0.544642	172.068	-733.4
239	10	0.553384	172.374	-727.866
240	10	0.56217	172.69	-722.244
241	10	0.570999	173.016	-716.534
242	10	0.579873	173.353	-710.736
243	10	0.588793	173.699	-704.848
244	10	0.597761	174.057	-698.87
245	10	0.606775	174.425	-692.802
246	10	0.612813	174.8	-686.674
247	10	0.621911	175.187	-680.455
248	10	0.631062	175.585	-674.144
249	10	0.640266	175.995	-667.742
250	10	0.649522	176.417	-661.247
251	10	0.658838	176.851	-654.658
252	10	0.668209	177.298	-647.976
253	10	0.677639	177.757	-641.2
254	10	0.687131	178.229	-634.328
255	10	0.696684	178.714	-627.362
256	10	0.706302	179.213	-620.298
257	10	0.715986	179.726	-613.139
258	10	0.725736	180.253	-605.881
259	10	0.735557	180.794	-598.526
260	10	0.745449	181.349	-591.071
261	10	0.755415	181.92	-583.517
262	10	0.765456	182.506	-575.862
263	10	0.775574	183.107	-568.107
264	10	0.785774	183.725	-560.249
265	10	0.796056	184.359	-552.288
266	10	0.806422	185.009	-544.224
267	10	0.816874	185.676	-536.055
268	10	0.827417	186.361	-527.781
269	10	0.838054	187.063	-519.401
270	10	0.848786	187.784	-510.913
271	10	0.859618	188.522	-502.317
272	10	0.87055	189.28	-493.611
273	10	0.881587	190.058	-484.795
274	10	0.892733	190.854	-475.868
275	10	0.903992	191.672	-466.828

276	10	0.911562	192.503	-457.713
277	10	0.923014	193.355	-448.482
278	10	0.93459	194.228	-439.136
279	10	0.946291	195.124	-429.674
280	10	0.958125	196.042	-420.092
281	10	0.970094	196.983	-410.391
282	10	0.982202	197.947	-400.569
283	10	0.994457	198.936	-390.625
284	10	1.00687	199.95	-380.556
285	10	1.01943	200.989	-370.362
286	10	1.03215	202.055	-360.04
287	10	1.04505	203.147	-349.59
288	10	1.05812	204.266	-339.009
289	10	1.07138	205.414	-328.295
290	10	1.08482	206.591	-317.447
291	10	1.09847	207.798	-306.462
292	10	1.11232	209.035	-295.339
293	10	1.12639	210.304	-284.075
294	10	1.14069	211.605	-272.668
295	10	1.15522	212.939	-261.116
296	10	1.17	214.308	-249.416
297	10	1.18504	215.713	-237.565
298	10	1.20036	217.154	-225.562
299	10	1.21596	218.632	-213.402
300	10	1.23187	220.15	-201.083
301	10	1.24809	221.707	-188.602
302	10	1.26464	223.307	-175.956
303	10	1.28155	224.949	-163.141
304	10	1.29884	226.636	-150.152
305	10	1.31652	228.369	-136.987
306	10	1.33462	230.15	-123.641
307	10	1.34694	231.965	-110.171
308	10	1.36581	233.83	-96.5133
309	10	1.38517	235.749	-82.6616
310	10	1.40507	237.723	-68.6109
311	10	1.42554	239.755	-54.3554
312	10	1.44663	241.848	-39.8891
313	10	1.46838	244.004	-25.2052
314	10	1.49085	246.227	-10.2967
315	10	1.5141	248.519	4.84433
316	10	1.5382	250.885	20.2263
317	10	1.56322	253.329	35.8586
318	10	1.58927	255.855	51.7512
319	10	1.61644	258.468	67.9156
320	10	1.64485	261.173	84.3641
321	10	1.67466	263.978	101.111
322	10	1.70604	266.888	118.171
323	10	1.7392	269.913	135.563
324	10	1.77438	273.061	153.307
325	10	1.81191	276.344	171.426
326	10	1.85218	279.775	189.948
327	10	1.8957	283.369	208.905
328	10	1.94314	287.144	228.336
329	10	1.99539	291.126	248.29
330	10	2.05375	295.344	268.828
331	10	2.12007	299.839	290.028
332	10.7	2.19728	304.667	313.539
333	12	2.29036	309.912	341.024
334	12	2.40892	315.715	369.931
335	12	2.57583	322.35	400.841
336	14	2.87815	330.634	441.135

Data Set Standard Deviation = 2.16194
Numerator = 194600
Denominator = 517702
W Statistic = 0.375892 = 194600 / 517702

5% Critical value of 0.976 exceeds 0.375892
Evidence of non-normality at 95% level of significance

Shapiro-Francia Test of Normality**Parameter: Copper, total****All Locations****Normality Test of Parameter Concentrations****Original Data (Not Transformed)****Non-Detects Replaced with Detection Limit**

Total Number of Measurements = 336

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.6	-2.87815	8.28375	-1.72689
2	0.8	-2.57583	14.9187	-3.78756
3	0.98	-2.40892	20.7216	-6.1483
4	0.99	-2.29036	25.9673	-8.41576
5	1	-2.19728	30.7954	-10.613
6	1.62	-2.12007	35.2901	-14.0476
7	1.66	-2.05375	39.508	-17.4568
8	1.8	-1.99539	43.4896	-21.0485
9	1.9	-1.94314	47.2654	-24.7404
10	1.94	-1.8957	50.859	-28.4181
11	1.99	-1.85218	54.2896	-32.1039
12	2.12	-1.81191	57.5726	-35.9452
13	2.2	-1.77438	60.721	-39.8488
14	2.22	-1.7392	63.7458	-43.7098
15	2.25	-1.70604	66.6564	-47.5484
16	2.3	-1.67466	69.4609	-51.4002
17	2.55	-1.64485	72.1665	-55.5945
18	2.63	-1.61644	74.7793	-59.8458
19	2.64	-1.58927	77.3051	-64.0414
20	2.67	-1.56322	79.7488	-68.2152
21	2.8	-1.5382	82.1148	-72.5222
22	2.9	-1.5141	84.4073	-76.9131
23	3.52	-1.49085	86.63	-82.1609
24	3.6	-1.46838	88.7861	-87.4471
25	3.67	-1.44663	90.8789	-92.7562
26	4.1	-1.42554	92.9111	-98.601
27	4.15	-1.40507	94.8853	-104.432
28	4.25	-1.38517	96.804	-110.319
29	4.7	-1.36581	98.6694	-116.738
30	4.9	-1.34694	100.484	-123.338
31	5.29	-1.33462	102.265	-130.398
32	5.98	-1.31652	103.998	-138.271
33	6.56	-1.29884	105.685	-146.792
34	7.11	-1.28155	107.327	-155.903
35	7.8	-1.26464	108.927	-165.768
36	9.2	-1.24809	110.484	-177.25
37	11.1	-1.23187	112.002	-190.924
38	13.1	-1.21596	113.481	-206.853
39	19	-1.20036	114.921	-229.66
40	21.3	-1.18504	116.326	-254.901
41	154	-1.17	117.695	-435.081
42	200	-1.15522	119.029	-666.126
43	200	-1.14069	120.33	-894.263
44	200	-1.12639	121.599	-1119.54
45	200	-1.11232	122.836	-1342.01
46	200	-1.09847	124.043	-1561.7
47	200	-1.08482	125.22	-1778.66
48	200	-1.07138	126.368	-1992.94
49	200	-1.05812	127.487	-2204.56
50	200	-1.04505	128.579	-2413.57
51	200	-1.03215	129.645	-2620
52	200	-1.01943	130.684	-2823.89
53	200	-1.00687	131.698	-3025.26
54	200	-0.994457	132.687	-3224.16
55	200	-0.982202	133.651	-3420.6
56	200	-0.970094	134.593	-3614.61
57	200	-0.958125	135.511	-3806.24
58	200	-0.946291	136.406	-3995.5
59	200	-0.93459	137.279	-4182.42
60	200	-0.923014	138.131	-4367.02
61	200	-0.911562	138.962	-4549.33
62	200	-0.903992	139.78	-4730.13

63	200	-0.892733	140.577	-4908.68
64	200	-0.881587	141.354	-5084.99
65	200	-0.87055	142.112	-5259.1
66	200	-0.859618	142.851	-5431.03
67	200	-0.848786	143.571	-5600.78
68	200	-0.838054	144.273	-5768.39
69	200	-0.827417	144.958	-5933.88
70	200	-0.816874	145.625	-6097.25
71	200	-0.806422	146.276	-6258.54
72	200	-0.796056	146.909	-6417.75
73	200	-0.785774	147.527	-6574.9
74	200	-0.775574	148.128	-6730.02
75	200	-0.765456	148.714	-6883.11
76	200	-0.755415	149.285	-7034.19
77	200	-0.745449	149.84	-7183.28
78	200	-0.735557	150.382	-7330.39
79	200	-0.725736	150.908	-7475.54
80	200	-0.715986	151.421	-7618.74
81	200	-0.706302	151.92	-7760
82	200	-0.696684	152.405	-7899.34
83	200	-0.687131	152.877	-8036.76
84	200	-0.677639	153.336	-8172.29
85	200	-0.668209	153.783	-8305.93
86	200	-0.658838	154.217	-8437.7
87	200	-0.649522	154.639	-8567.6
88	200	-0.640266	155.049	-8695.66
89	200	-0.631062	155.447	-8821.87
90	200	-0.621911	155.834	-8946.25
91	200	-0.612813	156.209	-9068.81
92	200	-0.606775	156.578	-9190.17
93	200	-0.597761	156.935	-9309.72
94	200	-0.588793	157.282	-9427.48
95	200	-0.579873	157.618	-9543.45
96	200	-0.570999	157.944	-9657.65
97	200	-0.56217	158.26	-9770.09
98	200	-0.553384	158.566	-9880.76
99	200	-0.544642	158.863	-9989.69
100	200	-0.53594	159.15	-10096.9
101	200	-0.52728	159.428	-10202.3
102	200	-0.518658	159.697	-10306.1
103	200	-0.510074	159.957	-10408.1
104	200	-0.501527	160.209	-10508.4
105	200	-0.493018	160.452	-10607
106	200	-0.484544	160.687	-10703.9
107	200	-0.476105	160.913	-10799.1
108	200	-0.467699	161.132	-10892.7
109	200	-0.459327	161.343	-10984.5
110	200	-0.450985	161.546	-11074.7
111	200	-0.442676	161.742	-11163.3
112	200	-0.434397	161.931	-11250.1
113	200	-0.426148	162.113	-11335.4
114	200	-0.417928	162.287	-11419
115	200	-0.409735	162.455	-11500.9
116	200	-0.401571	162.616	-11581.2
117	200	-0.393433	162.771	-11659.9
118	200	-0.385321	162.92	-11737
119	200	-0.377233	163.062	-11812.4
120	200	-0.369171	163.198	-11886.2
121	200	-0.361133	163.329	-11958.5
122	200	-0.353118	163.453	-12029.1
123	200	-0.347787	163.574	-12098.7
124	200	-0.33981	163.69	-12166.6
125	200	-0.331854	163.8	-12233
126	200	-0.323919	163.905	-12297.8
127	200	-0.316004	164.005	-12361
128	200	-0.308108	164.1	-12422.6
129	200	-0.300232	164.19	-12482.6
130	200	-0.292375	164.275	-12541.1
131	200	-0.284535	164.356	-12598
132	200	-0.276714	164.433	-12653.4
133	200	-0.268908	164.505	-12707.1

134	200	-0.26112	164.573	-12759.4
135	200	-0.253347	164.637	-12810
136	200	-0.24559	164.698	-12859.2
137	200	-0.237847	164.754	-12906.7
138	200	-0.230118	164.807	-12952.8
139	200	-0.222403	164.857	-12997.2
140	200	-0.214702	164.903	-13040.2
141	200	-0.207012	164.946	-13081.6
142	200	-0.199336	164.985	-13121.4
143	200	-0.191671	165.022	-13159.8
144	200	-0.184017	165.056	-13196.6
145	200	-0.176374	165.087	-13231.9
146	200	-0.168741	165.116	-13265.6
147	200	-0.161119	165.142	-13297.8
148	200	-0.153505	165.165	-13328.5
149	200	-0.1459	165.186	-13357.7
150	200	-0.138305	165.206	-13385.4
151	200	-0.130716	165.223	-13411.5
152	200	-0.123135	165.238	-13436.1
153	200	-0.115562	165.251	-13459.3
154	200	-0.110516	165.263	-13481.4
155	200	-0.102953	165.274	-13501.9
156	200	-0.0953969	165.283	-13521
157	200	-0.0878447	165.291	-13538.6
158	200	-0.0802981	165.297	-13554.7
159	200	-0.0727562	165.303	-13569.2
160	200	-0.0652187	165.307	-13582.2
161	200	-0.0576847	165.31	-13593.8
162	200	-0.0501541	165.313	-13603.8
163	200	-0.0426257	165.314	-13612.3
164	200	-0.0350997	165.316	-13619.4
165	200	-0.0275759	165.316	-13624.9
166	200	-0.0200544	165.317	-13628.9
167	200	-0.0125328	165.317	-13631.4
168	200	-0.00501359	165.317	-13632.4
169	200	0.00501359	165.317	-13631.4
170	200	0.0125328	165.317	-13628.9
171	200	0.0200544	165.318	-13624.9
172	200	0.0275759	165.318	-13619.4
173	200	0.0350997	165.32	-13612.3
174	200	0.0426257	165.321	-13603.8
175	200	0.0501541	165.324	-13593.8
176	200	0.0576847	165.327	-13582.2
177	200	0.0652187	165.332	-13569.2
178	200	0.0727562	165.337	-13554.7
179	200	0.0802981	165.343	-13538.6
180	200	0.0878447	165.351	-13521
181	200	0.0953969	165.36	-13501.9
182	200	0.102953	165.371	-13481.4
183	200	0.110516	165.383	-13459.3
184	200	0.115562	165.396	-13436.1
185	200	0.123135	165.411	-13411.5
186	200	0.130716	165.428	-13385.4
187	200	0.138305	165.448	-13357.7
188	200	0.1459	165.469	-13328.5
189	200	0.153505	165.492	-13297.8
190	200	0.161119	165.518	-13265.6
191	200	0.168741	165.547	-13231.9
192	200	0.176374	165.578	-13196.6
193	200	0.184017	165.612	-13159.8
194	200	0.191671	165.649	-13121.4
195	200	0.199336	165.688	-13081.6
196	200	0.207012	165.731	-13040.2
197	200	0.214702	165.777	-12997.2
198	200	0.222403	165.827	-12952.8
199	200	0.230118	165.88	-12906.7
200	200	0.237847	165.936	-12859.2
201	200	0.24559	165.997	-12810
202	200	0.253347	166.061	-12759.4
203	200	0.26112	166.129	-12707.1
204	200	0.268908	166.201	-12653.4

205	200	0.276714	166.278	-12598
206	200	0.284535	166.359	-12541.1
207	200	0.292375	166.444	-12482.6
208	200	0.300232	166.534	-12422.6
209	200	0.308108	166.629	-12361
210	200	0.316004	166.729	-12297.8
211	200	0.323919	166.834	-12233
212	200	0.331854	166.944	-12166.6
213	200	0.33981	167.06	-12098.7
214	200	0.347787	167.181	-12029.1
215	200	0.353118	167.305	-11958.5
216	200	0.361133	167.436	-11886.2
217	200	0.369171	167.572	-11812.4
218	200	0.377233	167.714	-11737
219	200	0.385321	167.863	-11659.9
220	200	0.393433	168.018	-11581.2
221	200	0.401571	168.179	-11500.9
222	200	0.409735	168.347	-11419
223	200	0.417928	168.521	-11335.4
224	200	0.426148	168.703	-11250.1
225	200	0.434397	168.892	-11163.3
226	200	0.442676	169.088	-11074.7
227	200	0.450985	169.291	-10984.5
228	200	0.459327	169.502	-10892.7
229	200	0.467699	169.721	-10799.1
230	200	0.476105	169.948	-10703.9
231	200	0.484544	170.182	-10607
232	200	0.493018	170.425	-10508.4
233	200	0.501527	170.677	-10408.1
234	200	0.510074	170.937	-10306.1
235	200	0.518658	171.206	-10202.3
236	200	0.52728	171.484	-10096.9
237	200	0.53594	171.771	-9989.69
238	200	0.544642	172.068	-9880.76
239	200	0.553384	172.374	-9770.09
240	200	0.56217	172.69	-9657.65
241	200	0.570999	173.016	-9543.45
242	200	0.579873	173.353	-9427.48
243	200	0.588793	173.699	-9309.72
244	200	0.597761	174.057	-9190.17
245	200	0.606775	174.425	-9068.81
246	200	0.612813	174.8	-8946.25
247	200	0.621911	175.187	-8821.87
248	200	0.631062	175.585	-8695.66
249	200	0.640266	175.995	-8567.6
250	200	0.649522	176.417	-8437.7
251	200	0.658838	176.851	-8305.93
252	200	0.668209	177.298	-8172.29
253	200	0.677639	177.757	-8036.76
254	200	0.687131	178.229	-7899.34
255	200	0.696684	178.714	-7760
256	200	0.706302	179.213	-7618.74
257	200	0.715986	179.726	-7475.54
258	200	0.725736	180.253	-7330.39
259	200	0.735557	180.794	-7183.28
260	200	0.745449	181.349	-7034.19
261	200	0.755415	181.92	-6883.11
262	200	0.765456	182.506	-6730.02
263	200	0.775574	183.107	-6574.9
264	200	0.785774	183.725	-6417.75
265	200	0.796056	184.359	-6258.54
266	200	0.806422	185.009	-6097.25
267	200	0.816874	185.676	-5933.88
268	200	0.827417	186.361	-5768.39
269	200	0.838054	187.063	-5600.78
270	200	0.848786	187.784	-5431.03
271	200	0.859618	188.522	-5259.1
272	200	0.87055	189.28	-5084.99
273	200	0.881587	190.058	-4908.68
274	200	0.892733	190.854	-4730.13
275	200	0.903992	191.672	-4549.33

276	200	0.911562	192.503	-4367.02
277	200	0.923014	193.355	-4182.42
278	200	0.93459	194.228	-3995.5
279	200	0.946291	195.124	-3806.24
280	200	0.958125	196.042	-3614.61
281	200	0.970094	196.983	-3420.6
282	200	0.982202	197.947	-3224.16
283	200	0.994457	198.936	-3025.26
284	200	1.00687	199.95	-2823.89
285	200	1.01943	200.989	-2620
286	200	1.03215	202.055	-2413.57
287	200	1.04505	203.147	-2204.56
288	200	1.05812	204.266	-1992.94
289	200	1.07138	205.414	-1778.66
290	200	1.08482	206.591	-1561.7
291	200	1.09847	207.798	-1342.01
292	200	1.11232	209.035	-1119.54
293	200	1.12639	210.304	-894.263
294	200	1.14069	211.605	-666.126
295	200	1.15522	212.939	-435.081
296	200	1.17	214.308	-201.081
297	200	1.18504	215.713	35.9278
298	200	1.20036	217.154	276
299	200	1.21596	218.632	519.192
300	200	1.23187	220.15	765.565
301	200	1.24809	221.707	1015.18
302	200	1.26464	223.307	1268.11
303	200	1.28155	224.949	1524.42
304	200	1.29884	226.636	1784.19
305	200	1.31652	228.369	2047.49
306	200	1.33462	230.15	2314.42
307	200	1.34694	231.965	2583.8
308	200	1.36581	233.83	2856.97
309	200	1.38517	235.749	3134
310	200	1.40507	237.723	3415.01
311	200	1.42554	239.755	3700.12
312	200	1.44663	241.848	3989.45
313	200	1.46838	244.004	4283.13
314	200	1.49085	246.227	4581.3
315	200	1.5141	248.519	4884.12
316	200	1.5382	250.885	5191.76
317	200	1.56322	253.329	5504.4
318	200	1.58927	255.855	5822.26
319	200	1.61644	258.468	6145.54
320	200	1.64485	261.173	6474.51
321	200	1.67466	263.978	6809.45
322	200	1.70604	266.888	7150.66
323	200	1.7392	269.913	7498.5
324	200	1.77438	273.061	7853.37
325	200	1.81191	276.344	8215.75
326	200	1.85218	279.775	8586.19
327	200	1.8957	283.369	8965.33
328	200	1.94314	287.144	9353.96
329	200	1.99539	291.126	9753.03
330	200	2.05375	295.344	10163.8
331	200	2.12007	299.839	10587.8
332	200	2.19728	304.667	11027.3
333	200	2.29036	309.912	11485.3
334	200	2.40892	315.715	11967.1
335	200	2.57583	322.35	12482.3
336	200	2.87815	330.634	13057.9

Data Set Standard Deviation = 63.4092
 Numerator = 1.70509e+008
 Denominator = 4.45345e+008
 W Statistic = 0.38287 = 1.70509e+008 / 4.45345e+008

5% Critical value of 0.976 exceeds 0.38287
Evidence of non-normality at 95% level of significance

Shapiro-Francia Test of Normality
Parameter: Vanadium
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit
Total Number of Measurements = 348

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	0.7	-2.87815	8.28375	-2.01471
2	0.8	-2.57583	14.9187	-4.07537
3	0.8	-2.40892	20.7216	-6.00251
4	1	-2.29036	25.9673	-8.29287
5	1.4	-2.19728	30.7954	-11.3691
6	1.61	-2.12007	35.2901	-14.7824
7	1.63	-2.05375	39.508	-18.13
8	1.79	-2.01409	43.5646	-21.7352
9	1.83	-1.95996	47.406	-25.322
10	1.92	-1.91103	51.058	-28.9911
11	1.97	-1.86629	54.5411	-32.6677
12	2	-1.82501	57.8717	-36.3177
13	2	-1.78661	61.0637	-39.891
14	2.06	-1.75069	64.1286	-43.4974
15	2.07	-1.72793	67.1144	-47.0742
16	2.1	-1.6954	69.9887	-50.6345
17	2.1	-1.66456	72.7595	-54.1301
18	2.1	-1.63524	75.4335	-57.5641
19	2.1	-1.60725	78.0167	-60.9393
20	2.14	-1.58047	80.5146	-64.3215
21	2.3	-1.55477	82.9319	-67.8975
22	2.3	-1.53007	85.273	-71.4166
23	2.31	-1.5141	87.5655	-74.9142
24	2.36	-1.49085	89.7882	-78.4326
25	2.36	-1.46838	91.9443	-81.898
26	2.46	-1.44663	94.0371	-85.4567
27	2.48	-1.42554	96.0693	-88.9921
28	2.5	-1.40507	98.0435	-92.5048
29	2.6	-1.38517	99.9622	-96.1062
30	2.6	-1.3722	101.845	-99.674
31	2.8	-1.35317	103.676	-103.463
32	2.87	-1.33462	105.457	-107.293
33	3	-1.31652	107.191	-111.243
34	3.1	-1.29884	108.878	-115.269
35	3.2	-1.28155	110.52	-119.37
36	3.43	-1.26464	112.119	-123.708
37	3.52	-1.24809	113.677	-128.101
38	3.6	-1.23724	115.208	-132.555
39	3.6	-1.22123	116.699	-136.952
40	3.6	-1.20553	118.152	-141.291
41	3.6	-1.19012	119.569	-145.576
42	3.6	-1.17499	120.949	-149.806
43	3.67	-1.16012	122.295	-154.063
44	3.7	-1.1455	123.608	-158.302
45	3.8	-1.1359	124.898	-162.618
46	3.9	-1.12168	126.156	-166.993
47	3.95	-1.10768	127.383	-171.368
48	4	-1.0939	128.58	-175.744
49	4.04	-1.08032	129.747	-180.108
50	4.5	-1.06694	130.885	-184.909
51	4.7	-1.05375	131.995	-189.862
52	5	-1.04505	133.087	-195.087
53	5.1	-1.03215	134.153	-200.351
54	5.12	-1.01943	135.192	-205.571
55	5.31	-1.00687	136.206	-210.917
56	5.38	-0.994457	137.195	-216.267
57	5.42	-0.982202	138.159	-221.591
58	5.48	-0.970094	139.101	-226.907
59	5.54	-0.958125	140.019	-232.215
60	5.54	-0.950222	140.922	-237.479
61	5.56	-0.938476	141.802	-242.697
62	5.58	-0.926859	142.661	-247.869

63	5.7	-0.915365	143.499	-253.087
64	6	-0.903992	144.316	-258.511
65	6.25	-0.892733	145.113	-264.09
66	6.31	-0.881587	145.891	-269.653
67	6.8	-0.874218	146.655	-275.598
68	7.24	-0.863249	147.4	-281.848
69	9.9	-0.852385	148.127	-290.286
70	40	-0.841621	148.835	-323.951
71	40	-0.830953	149.525	-357.189
72	40	-0.820379	150.198	-390.004
73	40	-0.809896	150.854	-422.4
74	40	-0.7995	151.494	-454.38
75	40	-0.792618	152.122	-486.085
76	40	-0.782366	152.734	-517.38
77	40	-0.772193	153.33	-548.267
78	40	-0.7621	153.911	-578.751
79	40	-0.752084	154.477	-608.835
80	40	-0.742143	155.027	-638.52
81	40	-0.732275	155.564	-667.811
82	40	-0.725736	156.09	-696.841
83	40	-0.715986	156.603	-725.48
84	40	-0.706302	157.102	-753.732
85	40	-0.696684	157.587	-781.6
86	40	-0.687131	158.059	-809.085
87	40	-0.677639	158.519	-836.191
88	40	-0.668209	158.965	-862.919
89	40	-0.658838	159.399	-889.272
90	40	-0.652622	159.825	-915.377
91	40	-0.643345	160.239	-941.111
92	40	-0.634124	160.641	-966.476
93	40	-0.624956	161.032	-991.474
94	40	-0.615839	161.411	-1016.11
95	40	-0.606775	161.779	-1040.38
96	40	-0.597761	162.136	-1064.29
97	40	-0.591776	162.487	-1087.96
98	40	-0.582841	162.826	-1111.27
99	40	-0.573953	163.156	-1134.23
100	40	-0.565108	163.475	-1156.84
101	40	-0.556308	163.784	-1179.09
102	40	-0.547551	164.084	-1200.99
103	40	-0.538836	164.375	-1222.54
104	40	-0.533048	164.659	-1243.87
105	40	-0.524401	164.934	-1264.84
106	40	-0.515791	165.2	-1285.47
107	40	-0.507221	165.457	-1305.76
108	40	-0.498687	165.706	-1325.71
109	40	-0.490189	165.946	-1345.32
110	40	-0.481728	166.178	-1364.59
111	40	-0.473299	166.402	-1383.52
112	40	-0.467699	166.621	-1402.23
113	40	-0.459327	166.832	-1420.6
114	40	-0.450985	167.035	-1438.64
115	40	-0.442676	167.231	-1456.35
116	40	-0.434397	167.42	-1473.72
117	40	-0.426148	167.601	-1490.77
118	40	-0.417928	167.776	-1507.49
119	40	-0.412463	167.946	-1523.98
120	40	-0.40429	168.11	-1540.16
121	40	-0.396142	168.267	-1556
122	40	-0.388022	168.417	-1571.52
123	40	-0.379927	168.562	-1586.72
124	40	-0.371856	168.7	-1601.59
125	40	-0.363809	168.832	-1616.15
126	40	-0.355788	168.959	-1630.38
127	40	-0.350451	169.082	-1644.39
128	40	-0.342466	169.199	-1658.09
129	40	-0.334503	169.311	-1671.47
130	40	-0.326561	169.417	-1684.54
131	40	-0.318639	169.519	-1697.28
132	40	-0.310738	169.616	-1709.71
133	40	-0.302855	169.707	-1721.83

134	40	-0.297612	169.796	-1733.73
135	40	-0.28976	169.88	-1745.32
136	40	-0.281926	169.959	-1756.6
137	40	-0.27411	170.034	-1767.56
138	40	-0.266311	170.105	-1778.21
139	40	-0.258527	170.172	-1788.56
140	40	-0.250759	170.235	-1798.59
141	40	-0.243007	170.294	-1808.31
142	40	-0.237847	170.351	-1817.82
143	40	-0.230118	170.404	-1827.02
144	40	-0.222403	170.453	-1835.92
145	40	-0.214702	170.499	-1844.51
146	40	-0.207012	170.542	-1852.79
147	40	-0.199336	170.582	-1860.76
148	40	-0.191671	170.618	-1868.43
149	40	-0.186567	170.653	-1875.89
150	40	-0.17892	170.685	-1883.05
151	40	-0.171285	170.715	-1889.9
152	40	-0.163659	170.741	-1896.45
153	40	-0.156042	170.766	-1902.69
154	40	-0.148434	170.788	-1908.63
155	40	-0.140835	170.808	-1914.26
156	40	-0.135774	170.826	-1919.69
157	40	-0.128189	170.843	-1924.82
158	40	-0.12061	170.857	-1929.64
159	40	-0.113039	170.87	-1934.16
160	40	-0.105474	170.881	-1938.38
161	40	-0.0979139	170.891	-1942.3
162	40	-0.0903606	170.899	-1945.91
163	40	-0.0828129	170.906	-1949.23
164	40	-0.0777834	170.912	-1952.34
165	40	-0.0702426	170.917	-1955.15
166	40	-0.0627062	170.92	-1957.66
167	40	-0.0551734	170.924	-1959.86
168	40	-0.0476439	170.926	-1961.77
169	40	-0.0401167	170.927	-1963.37
170	40	-0.0325917	170.928	-1964.68
171	40	-0.0275759	170.929	-1965.78
172	40	-0.0200544	170.93	-1966.58
173	40	-0.0125328	170.93	-1967.08
174	40	-0.00501359	170.93	-1967.28
175	40	0.00501359	170.93	-1967.08
176	40	0.0125328	170.93	-1966.58
177	40	0.0200544	170.93	-1965.78
178	40	0.0275759	170.931	-1964.68
179	40	0.0325917	170.932	-1963.37
180	40	0.0401167	170.934	-1961.77
181	40	0.0476439	170.936	-1959.86
182	40	0.0551734	170.939	-1957.66
183	40	0.0627062	170.943	-1955.15
184	40	0.0702426	170.948	-1952.34
185	40	0.0777834	170.954	-1949.23
186	40	0.0828129	170.961	-1945.91
187	40	0.0903606	170.969	-1942.3
188	40	0.0979139	170.979	-1938.38
189	40	0.105474	170.99	-1934.16
190	40	0.113039	171.003	-1929.64
191	40	0.12061	171.017	-1924.82
192	40	0.128189	171.034	-1919.69
193	40	0.135774	171.052	-1914.26
194	40	0.140835	171.072	-1908.63
195	40	0.148434	171.094	-1902.69
196	40	0.156042	171.118	-1896.45
197	40	0.163659	171.145	-1889.9
198	40	0.171285	171.174	-1883.05
199	40	0.17892	171.206	-1875.89
200	40	0.186567	171.241	-1868.43
201	40	0.191671	171.278	-1860.76
202	40	0.199336	171.318	-1852.79
203	40	0.207012	171.36	-1844.51
204	40	0.214702	171.407	-1835.92

205	40	0.222403	171.456	-1827.02
206	40	0.230118	171.509	-1817.82
207	40	0.237847	171.566	-1808.31
208	40	0.243007	171.625	-1798.59
209	40	0.250759	171.687	-1788.56
210	40	0.258527	171.754	-1778.21
211	40	0.266311	171.825	-1767.56
212	40	0.27411	171.9	-1756.6
213	40	0.281926	171.98	-1745.32
214	40	0.28976	172.064	-1733.73
215	40	0.297612	172.152	-1721.83
216	40	0.302855	172.244	-1709.71
217	40	0.310738	172.341	-1697.28
218	40	0.318639	172.442	-1684.54
219	40	0.326561	172.549	-1671.47
220	40	0.334503	172.661	-1658.09
221	40	0.342466	172.778	-1644.39
222	40	0.350451	172.901	-1630.38
223	40	0.355788	173.027	-1616.15
224	40	0.363809	173.16	-1601.59
225	40	0.371856	173.298	-1586.72
226	40	0.379927	173.442	-1571.52
227	40	0.388022	173.593	-1556
228	40	0.396142	173.75	-1540.16
229	40	0.40429	173.913	-1523.98
230	40	0.412463	174.083	-1507.49
231	40	0.417928	174.258	-1490.77
232	40	0.426148	174.44	-1473.72
233	40	0.434397	174.628	-1456.35
234	40	0.442676	174.824	-1438.64
235	40	0.450985	175.028	-1420.6
236	40	0.459327	175.239	-1402.23
237	40	0.467699	175.458	-1383.52
238	40	0.473299	175.682	-1364.59
239	40	0.481728	175.914	-1345.32
240	40	0.490189	176.154	-1325.71
241	40	0.498687	176.403	-1305.76
242	40	0.507221	176.66	-1285.47
243	40	0.515791	176.926	-1264.84
244	40	0.524401	177.201	-1243.87
245	40	0.533048	177.485	-1222.54
246	40	0.538836	177.775	-1200.99
247	40	0.547551	178.075	-1179.09
248	40	0.556308	178.385	-1156.84
249	40	0.565108	178.704	-1134.23
250	40	0.573953	179.033	-1111.27
251	40	0.582841	179.373	-1087.96
252	40	0.591776	179.723	-1064.29
253	40	0.597761	180.081	-1040.38
254	40	0.606775	180.449	-1016.11
255	40	0.615839	180.828	-991.474
256	40	0.624956	181.219	-966.476
257	40	0.634124	181.621	-941.111
258	40	0.643345	182.035	-915.377
259	40	0.652622	182.461	-889.272
260	40	0.658838	182.895	-862.919
261	40	0.668209	183.341	-836.191
262	40	0.677639	183.8	-809.085
263	40	0.687131	184.272	-781.6
264	40	0.696684	184.758	-753.732
265	40	0.706302	185.257	-725.48
266	40	0.715986	185.769	-696.841
267	40	0.725736	186.296	-667.811
268	40	0.732275	186.832	-638.52
269	40	0.742143	187.383	-608.835
270	40	0.752084	187.949	-578.751
271	40	0.7621	188.529	-548.267
272	40	0.772193	189.126	-517.38
273	40	0.782366	189.738	-486.085
274	40	0.792618	190.366	-454.38
275	40	0.7995	191.005	-422.4

276	40	0.809896	191.661	-390.004
277	40	0.820379	192.334	-357.189
278	40	0.830953	193.025	-323.951
279	40	0.841621	193.733	-290.286
280	40	0.852385	194.46	-256.191
281	40	0.863249	195.205	-221.661
282	40	0.874218	195.969	-186.692
283	40	0.881587	196.746	-151.429
284	40	0.892733	197.543	-115.719
285	40	0.903992	198.36	-79.5597
286	40	0.915365	199.198	-42.9451
287	40	0.926859	200.057	-5.87069
288	40	0.938476	200.938	31.6683
289	40	0.950222	201.841	69.6772
290	40	0.958125	202.759	108.002
291	40	0.970094	203.7	146.806
292	40	0.982202	204.665	186.094
293	40	0.994457	205.654	225.872
294	40	1.00687	206.668	266.147
295	40	1.01943	207.707	306.924
296	40	1.03215	208.772	348.21
297	40	1.04505	209.864	390.012
298	40	1.05375	210.975	432.162
299	40	1.06694	212.113	474.84
300	40	1.08032	213.28	518.052
301	40	1.0939	214.477	561.808
302	40	1.10768	215.704	606.115
303	40	1.12168	216.962	650.983
304	40	1.1359	218.252	696.418
305	40	1.1455	219.564	742.239
306	40	1.16012	220.91	788.643
307	40	1.17499	222.291	835.643
308	40	1.19012	223.707	883.248
309	40	1.20553	225.16	931.469
310	40	1.22123	226.652	980.318
311	40	1.23724	228.183	1029.81
312	40	1.24809	229.74	1079.73
313	40	1.26464	231.34	1130.32
314	40	1.28155	232.982	1181.58
315	40	1.29884	234.669	1233.53
316	40	1.31652	236.402	1286.19
317	40	1.33462	238.183	1339.58
318	40	1.35317	240.014	1393.7
319	40	1.3722	241.897	1448.59
320	40	1.38517	243.816	1504
321	40	1.40507	245.79	1560.2
322	40	1.42554	247.823	1617.22
323	40	1.44663	249.915	1675.09
324	40	1.46838	252.071	1733.82
325	40	1.49085	254.294	1793.46
326	40	1.5141	256.587	1854.02
327	40	1.53007	258.928	1915.23
328	40	1.55477	261.345	1977.42
329	40	1.58047	263.843	2040.64
330	40	1.60725	266.426	2104.93
331	40	1.63524	269.1	2170.33
332	40	1.66456	271.871	2236.92
333	40	1.6954	274.745	2304.73
334	40	1.72793	277.731	2373.85
335	40	1.75069	280.796	2443.88
336	40	1.78661	283.988	2515.34
337	40	1.82501	287.319	2588.34
338	40	1.86629	290.802	2662.99
339	40	1.91103	294.454	2739.44
340	40	1.95996	298.295	2817.83
341	40	2.01409	302.352	2898.4
342	40	2.05375	306.57	2980.55
343	40	2.12007	311.064	3065.35
344	40	2.19728	315.892	3153.24
345	40	2.29036	321.138	3244.86
346	40	2.40892	326.941	3341.21

347	40	2.57583	333.576	3444.25
348	64	2.87815	341.86	3628.45

Data Set Standard Deviation = 14.6839

Numerator = 1.31656e+007

Denominator = 2.55778e+007

W Statistic = 0.514729 = 1.31656e+007 / 2.55778e+007

5% Critical value of 0.976 exceeds 0.514729

Evidence of non-normality at 95% level of significance

1% Critical value of 0.967 exceeds 0.514729

Evidence of non-normality at 99% level of significance

Shapiro-Francia Test of Normality
Parameter: Zinc, total
All Locations
Normality Test of Parameter Concentrations
Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit
Total Number of Measurements = 336

i	x(i)	m(i)	sum(m^2)	sum(mx)
1	1	-2.87815	8.28375	-2.87815
2	1	-2.57583	14.9187	-5.45399
3	1	-2.40892	20.7216	-7.86291
4	1.3	-2.29036	25.9673	-10.8404
5	1.5	-2.19728	30.7954	-14.1363
6	2.1	-2.12007	35.2901	-18.5885
7	2.2	-2.05375	39.508	-23.1067
8	2.3	-1.99539	43.4896	-27.6961
9	2.4	-1.94314	47.2654	-32.3596
10	2.5	-1.8957	50.859	-37.0989
11	2.7	-1.85218	54.2896	-42.0997
12	3.1	-1.81191	57.5726	-47.7167
13	3.5	-1.77438	60.721	-53.927
14	3.6	-1.7392	63.7458	-60.1881
15	3.9	-1.70604	66.6564	-66.8417
16	3.93	-1.67466	69.4609	-73.4231
17	3.96	-1.64485	72.1665	-79.9367
18	4.1	-1.61644	74.7793	-86.5641
19	4.1	-1.58927	77.3051	-93.0801
20	4.2	-1.56322	79.7488	-99.6457
21	4.28	-1.5382	82.1148	-106.229
22	4.37	-1.5141	84.4073	-112.846
23	4.47	-1.49085	86.63	-119.51
24	4.78	-1.46838	88.7861	-126.529
25	4.87	-1.44663	90.8789	-133.574
26	4.99	-1.42554	92.9111	-140.687
27	5.1	-1.40507	94.8853	-147.853
28	5.2	-1.38517	96.804	-155.056
29	5.22	-1.36581	98.6694	-162.186
30	5.22	-1.34694	100.484	-169.217
31	5.4	-1.33462	102.265	-176.424
32	5.5	-1.31652	103.998	-183.664
33	5.8	-1.29884	105.685	-191.198
34	5.8	-1.28155	107.327	-198.631
35	5.98	-1.26464	108.927	-206.193
36	6.2	-1.24809	110.484	-213.931
37	6.4	-1.23187	112.002	-221.815
38	6.4	-1.21596	113.481	-229.597
39	6.51	-1.20036	114.921	-237.412
40	7.32	-1.18504	116.326	-246.086
41	7.5	-1.17	117.695	-254.861
42	7.98	-1.15522	119.029	-264.08
43	8.21	-1.14069	120.33	-273.445
44	8.38	-1.12639	121.599	-282.884
45	8.55	-1.11232	122.836	-292.395
46	9	-1.09847	124.043	-302.281
47	9.83	-1.08482	125.22	-312.945
48	11.4	-1.07138	126.368	-325.158
49	13.8	-1.05812	127.487	-339.76
50	14.8	-1.04505	128.579	-355.227
51	17.5	-1.03215	129.645	-373.29
52	24.5	-1.01943	130.684	-398.266
53	24.6	-1.00687	131.698	-423.035
54	40	-0.994457	132.687	-462.813
55	50	-0.982202	133.651	-511.923
56	50	-0.970094	134.593	-560.428
57	50	-0.958125	135.511	-608.334
58	50	-0.946291	136.406	-655.649
59	50	-0.93459	137.279	-702.378
60	50	-0.923014	138.131	-748.529
61	50	-0.911562	138.962	-794.107
62	50	-0.903992	139.78	-839.307

63	50	-0.892733	140.577	-883.943
64	50	-0.881587	141.354	-928.023
65	50	-0.87055	142.112	-971.55
66	50	-0.859618	142.851	-1014.53
67	50	-0.848786	143.571	-1056.97
68	50	-0.838054	144.273	-1098.87
69	50	-0.827417	144.958	-1140.24
70	50	-0.816874	145.625	-1181.09
71	50	-0.806422	146.276	-1221.41
72	50	-0.796056	146.909	-1261.21
73	50	-0.785774	147.527	-1300.5
74	50	-0.775574	148.128	-1339.28
75	50	-0.765456	148.714	-1377.55
76	50	-0.755415	149.285	-1415.32
77	50	-0.745449	149.84	-1452.59
78	50	-0.735557	150.382	-1489.37
79	50	-0.725736	150.908	-1525.66
80	50	-0.715986	151.421	-1561.46
81	50	-0.706302	151.92	-1596.77
82	50	-0.696684	152.405	-1631.61
83	50	-0.687131	152.877	-1665.96
84	50	-0.677639	153.336	-1699.85
85	50	-0.668209	153.783	-1733.26
86	50	-0.658838	154.217	-1766.2
87	50	-0.649522	154.639	-1798.68
88	50	-0.640266	155.049	-1830.69
89	50	-0.631062	155.447	-1862.24
90	50	-0.621911	155.834	-1893.34
91	50	-0.612813	156.209	-1923.98
92	50	-0.606775	156.578	-1954.32
93	50	-0.597761	156.935	-1984.2
94	50	-0.588793	157.282	-2013.64
95	50	-0.579873	157.618	-2042.64
96	50	-0.570999	157.944	-2071.19
97	50	-0.56217	158.26	-2099.3
98	50	-0.553384	158.566	-2126.97
99	50	-0.544642	158.863	-2154.2
100	50	-0.53594	159.15	-2180.99
101	50	-0.52728	159.428	-2207.36
102	50	-0.518658	159.697	-2233.29
103	50	-0.510074	159.957	-2258.8
104	50	-0.501527	160.209	-2283.87
105	50	-0.493018	160.452	-2308.52
106	50	-0.484544	160.687	-2332.75
107	50	-0.476105	160.913	-2356.55
108	50	-0.467699	161.132	-2379.94
109	50	-0.459327	161.343	-2402.91
110	50	-0.450985	161.546	-2425.46
111	50	-0.442676	161.742	-2447.59
112	50	-0.434397	161.931	-2469.31
113	50	-0.426148	162.113	-2490.62
114	50	-0.417928	162.287	-2511.51
115	50	-0.409735	162.455	-2532
116	50	-0.401571	162.616	-2552.08
117	50	-0.393433	162.771	-2571.75
118	50	-0.385321	162.92	-2591.02
119	50	-0.377233	163.062	-2609.88
120	50	-0.369171	163.198	-2628.34
121	50	-0.361133	163.329	-2646.39
122	50	-0.353118	163.453	-2664.05
123	50	-0.347787	163.574	-2681.44
124	50	-0.33981	163.69	-2698.43
125	50	-0.331854	163.8	-2715.02
126	50	-0.323919	163.905	-2731.22
127	50	-0.316004	164.005	-2747.02
128	50	-0.308108	164.1	-2762.42
129	50	-0.300232	164.19	-2777.43
130	50	-0.292375	164.275	-2792.05
131	50	-0.284535	164.356	-2806.28
132	50	-0.276714	164.433	-2820.12
133	50	-0.268908	164.505	-2833.56

134	50	-0.26112	164.573	-2846.62
135	50	-0.253347	164.637	-2859.28
136	50	-0.24559	164.698	-2871.56
137	50	-0.237847	164.754	-2883.46
138	50	-0.230118	164.807	-2894.96
139	50	-0.222403	164.857	-2906.08
140	50	-0.214702	164.903	-2916.82
141	50	-0.207012	164.946	-2927.17
142	50	-0.199336	164.985	-2937.13
143	50	-0.191671	165.022	-2946.72
144	50	-0.184017	165.056	-2955.92
145	50	-0.176374	165.087	-2964.74
146	50	-0.168741	165.116	-2973.17
147	50	-0.161119	165.142	-2981.23
148	50	-0.153505	165.165	-2988.91
149	50	-0.1459	165.186	-2996.2
150	50	-0.138305	165.206	-3003.12
151	50	-0.130716	165.223	-3009.65
152	50	-0.123135	165.238	-3015.81
153	50	-0.115562	165.251	-3021.59
154	50	-0.110516	165.263	-3027.11
155	50	-0.102953	165.274	-3032.26
156	50	-0.0953969	165.283	-3037.03
157	50	-0.0878447	165.291	-3041.42
158	50	-0.0802981	165.297	-3045.44
159	50	-0.0727562	165.303	-3049.08
160	50	-0.0652187	165.307	-3052.34
161	50	-0.0576847	165.31	-3055.22
162	50	-0.0501541	165.313	-3057.73
163	50	-0.0426257	165.314	-3059.86
164	50	-0.0350997	165.316	-3061.61
165	50	-0.0275759	165.316	-3062.99
166	50	-0.0200544	165.317	-3064
167	50	-0.0125328	165.317	-3064.62
168	50	-0.00501359	165.317	-3064.87
169	50	0.00501359	165.317	-3064.62
170	50	0.0125328	165.317	-3064
171	50	0.0200544	165.318	-3062.99
172	50	0.0275759	165.318	-3061.61
173	50	0.0350997	165.32	-3059.86
174	50	0.0426257	165.321	-3057.73
175	50	0.0501541	165.324	-3055.22
176	50	0.0576847	165.327	-3052.34
177	50	0.0652187	165.332	-3049.08
178	50	0.0727562	165.337	-3045.44
179	50	0.0802981	165.343	-3041.42
180	50	0.0878447	165.351	-3037.03
181	50	0.0953969	165.36	-3032.26
182	50	0.102953	165.371	-3027.11
183	50	0.110516	165.383	-3021.59
184	50	0.115562	165.396	-3015.81
185	50	0.123135	165.411	-3009.65
186	50	0.130716	165.428	-3003.12
187	50	0.138305	165.448	-2996.2
188	50	0.1459	165.469	-2988.91
189	50	0.153505	165.492	-2981.23
190	50	0.161119	165.518	-2973.17
191	50	0.168741	165.547	-2964.74
192	50	0.176374	165.578	-2955.92
193	50	0.184017	165.612	-2946.72
194	50	0.191671	165.649	-2937.13
195	50	0.199336	165.688	-2927.17
196	50	0.207012	165.731	-2916.82
197	50	0.214702	165.777	-2906.08
198	50	0.222403	165.827	-2894.96
199	50	0.230118	165.88	-2883.46
200	50	0.237847	165.936	-2871.56
201	50	0.24559	165.997	-2859.28
202	50	0.253347	166.061	-2846.62
203	50	0.26112	166.129	-2833.56
204	50	0.268908	166.201	-2820.12

205	50	0.276714	166.278	-2806.28
206	50	0.284535	166.359	-2792.05
207	50	0.292375	166.444	-2777.43
208	50	0.300232	166.534	-2762.42
209	50	0.308108	166.629	-2747.02
210	50	0.316004	166.729	-2731.22
211	50	0.323919	166.834	-2715.02
212	50	0.331854	166.944	-2698.43
213	50	0.33981	167.06	-2681.44
214	50	0.347787	167.181	-2664.05
215	50	0.353118	167.305	-2646.39
216	50	0.361133	167.436	-2628.34
217	50	0.369171	167.572	-2609.88
218	50	0.377233	167.714	-2591.02
219	50	0.385321	167.863	-2571.75
220	50	0.393433	168.018	-2552.08
221	50	0.401571	168.179	-2532
222	50	0.409735	168.347	-2511.51
223	50	0.417928	168.521	-2490.62
224	50	0.426148	168.703	-2469.31
225	50	0.434397	168.892	-2447.59
226	50	0.442676	169.088	-2425.46
227	50	0.450985	169.291	-2402.91
228	50	0.459327	169.502	-2379.94
229	50	0.467699	169.721	-2356.55
230	50	0.476105	169.948	-2332.75
231	50	0.484544	170.182	-2308.52
232	50	0.493018	170.425	-2283.87
233	50	0.501527	170.677	-2258.8
234	50	0.510074	170.937	-2233.29
235	50	0.518658	171.206	-2207.36
236	50	0.52728	171.484	-2180.99
237	50	0.53594	171.771	-2154.2
238	50	0.544642	172.068	-2126.97
239	50	0.553384	172.374	-2099.3
240	50	0.56217	172.69	-2071.19
241	50	0.570999	173.016	-2042.64
242	50	0.579873	173.353	-2013.64
243	50	0.588793	173.699	-1984.2
244	50	0.597761	174.057	-1954.32
245	50	0.606775	174.425	-1923.98
246	50	0.612813	174.8	-1893.34
247	50	0.621911	175.187	-1862.24
248	50	0.631062	175.585	-1830.69
249	50	0.640266	175.995	-1798.68
250	50	0.649522	176.417	-1766.2
251	50	0.658838	176.851	-1733.26
252	50	0.668209	177.298	-1699.85
253	50	0.677639	177.757	-1665.96
254	50	0.687131	178.229	-1631.61
255	50	0.696684	178.714	-1596.77
256	50	0.706302	179.213	-1561.46
257	50	0.715986	179.726	-1525.66
258	50	0.725736	180.253	-1489.37
259	50	0.735557	180.794	-1452.59
260	50	0.745449	181.349	-1415.32
261	50	0.755415	181.92	-1377.55
262	50	0.765456	182.506	-1339.28
263	50	0.775574	183.107	-1300.5
264	50	0.785774	183.725	-1261.21
265	50	0.796056	184.359	-1221.41
266	50	0.806422	185.009	-1181.09
267	50	0.816874	185.676	-1140.24
268	50	0.827417	186.361	-1098.87
269	50	0.838054	187.063	-1056.97
270	50	0.848786	187.784	-1014.53
271	50	0.859618	188.522	-971.55
272	50	0.87055	189.28	-928.023
273	50	0.881587	190.058	-883.943
274	50	0.892733	190.854	-839.307
275	50	0.903992	191.672	-794.107

276	50	0.911562	192.503	-748.529
277	50	0.923014	193.355	-702.378
278	50	0.93459	194.228	-655.649
279	50	0.946291	195.124	-608.334
280	50	0.958125	196.042	-560.428
281	50	0.970094	196.983	-511.923
282	50	0.982202	197.947	-462.813
283	50	0.994457	198.936	-413.09
284	50	1.00687	199.95	-362.747
285	50	1.01943	200.989	-311.775
286	50	1.03215	202.055	-260.168
287	50	1.04505	203.147	-207.915
288	50	1.05812	204.266	-155.009
289	50	1.07138	205.414	-101.44
290	50	1.08482	206.591	-47.1992
291	50	1.09847	207.798	7.72431
292	50	1.11232	209.035	63.3404
293	50	1.12639	210.304	119.66
294	50	1.14069	211.605	176.694
295	50	1.15522	212.939	234.455
296	50	1.17	214.308	292.955
297	50	1.18504	215.713	352.208
298	50	1.20036	217.154	412.226
299	50	1.21596	218.632	473.024
300	50	1.23187	220.15	534.617
301	50	1.24809	221.707	597.021
302	50	1.26464	223.307	660.253
303	50	1.28155	224.949	724.331
304	50	1.29884	226.636	789.273
305	50	1.31652	228.369	855.099
306	50	1.33462	230.15	921.83
307	50	1.34694	231.965	989.177
308	50	1.36581	233.83	1057.47
309	50	1.38517	235.749	1126.73
310	50	1.40507	237.723	1196.98
311	50	1.42554	239.755	1268.26
312	50	1.44663	241.848	1340.59
313	50	1.46838	244.004	1414.01
314	50	1.49085	246.227	1488.55
315	50	1.5141	248.519	1564.26
316	50	1.5382	250.885	1641.17
317	50	1.56322	253.329	1719.33
318	50	1.58927	255.855	1798.79
319	50	1.61644	258.468	1879.61
320	50	1.64485	261.173	1961.85
321	50	1.67466	263.978	2045.59
322	50	1.70604	266.888	2130.89
323	50	1.7392	269.913	2217.85
324	50	1.77438	273.061	2306.57
325	50	1.81191	276.344	2397.16
326	50	1.85218	279.775	2489.77
327	50	1.8957	283.369	2584.56
328	50	1.94314	287.144	2681.71
329	50	1.99539	291.126	2781.48
330	50	2.05375	295.344	2884.17
331	50	2.12007	299.839	2990.18
332	50	2.19728	304.667	3100.04
333	54	2.29036	309.912	3223.72
334	56	2.40892	315.715	3358.62
335	69	2.57583	322.35	3536.35
336	154	2.87815	330.634	3979.59

Data Set Standard Deviation = 17.2592
Numerator = 1.58371e+007
Denominator = 3.29938e+007
W Statistic = 0.480002 = 1.58371e+007 / 3.29938e+007

5% Critical value of 0.976 exceeds 0.480002
Evidence of non-normality at 95% level of significance

APPENDIX VI

Non-Parametric Upper Tolerance Limit Computations

Non-Parametric Tolerance Interval

Parameter: Barium, total

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 65.1786%

Background measurements (n) = 56

Maximum Background Concentration = 500

Minimum Coverage = 95.1%

Average Coverage = 98.2456%

Location	Date	Value	Significant
MW-17	12/16/1997	ND<500	FALSE
MW-17	1/14/1998	ND<500	FALSE
MW-17	2/13/1998	ND<500	FALSE
MW-17	3/6/1998	ND<500	FALSE
MW-17	10/15/1998	ND<500	FALSE
MW-17	3/25/1999	ND<500	FALSE
MW-17	9/23/1999	ND<500	FALSE
MW-17	3/29/2000	ND<500	FALSE
MW-17	9/14/2000	ND<500	FALSE
MW-17	3/12/2001	ND<500	FALSE
MW-17	10/13/2001	ND<500	FALSE
MW-17	3/8/2002	ND<500	FALSE
MW-17	9/19/2002	ND<500	FALSE
MW-17	4/15/2003	ND<500	FALSE
MW-17	10/16/2003	ND<500	FALSE
MW-17	3/25/2004	ND<500	FALSE
MW-17	10/18/2006	ND<500	FALSE
MW-17	4/9/2007	ND<500	FALSE
MW-17	9/24/2007	50.3	FALSE
MW-17	5/2/2008	52.7	FALSE
MW-17	12/5/2008	49.3	FALSE
MW-17	4/15/2009	57.6	FALSE
MW-17	10/9/2009	52.4	FALSE
MW-17	4/30/2010	51.8	FALSE
MW-17	10/5/2010	47.4	FALSE
MW-17	5/12/2011	54	FALSE
MW-17	10/6/2011	51.5	FALSE
MW-17	4/19/2012	53.8	FALSE

MW-18	12/16/1997	ND<500	FALSE
MW-18	1/14/1998	ND<500	FALSE
MW-18	2/13/1998	ND<500	FALSE
MW-18	3/6/1998	ND<500	FALSE
MW-18	10/15/1998	ND<500	FALSE
MW-18	3/25/1999	ND<500	FALSE
MW-18	9/23/1999	ND<500	FALSE
MW-18	3/29/2000	ND<500	FALSE
MW-18	9/14/2000	ND<500	FALSE
MW-18	3/12/2001	ND<500	FALSE
MW-18	10/13/2001	ND<500	FALSE
MW-18	3/8/2002	ND<500	FALSE
MW-18	9/19/2002	ND<500	FALSE
MW-18	4/15/2003	ND<500	FALSE
MW-18	10/16/2003	ND<500	FALSE
MW-18	3/25/2004	ND<500	FALSE
MW-18	10/18/2006	ND<500	FALSE
MW-18	4/9/2007	ND<500	FALSE
MW-18	9/24/2007	29	FALSE
MW-18	5/2/2008	23	FALSE
MW-18	12/5/2008	28.1	FALSE
MW-18	4/15/2009	34.3	FALSE
MW-18	10/9/2009	25.9	FALSE
MW-18	4/30/2010	23.6	FALSE
MW-18	10/5/2010	25.5	FALSE
MW-18	5/12/2011	24.1	FALSE
MW-18	10/6/2011	22.1	FALSE
MW-18	4/19/2012	24.2	FALSE

MW-19	12/16/1997	ND<500	FALSE
MW-19	1/14/1998	ND<500	FALSE
MW-19	2/13/1998	69	FALSE
MW-19	3/6/1998	ND<500	FALSE
MW-19	10/15/1998	ND<500	FALSE
MW-19	3/25/1999	ND<500	FALSE
MW-19	9/23/1999	ND<500	FALSE
MW-19	3/29/2000	ND<500	FALSE
MW-19	9/14/2000	ND<500	FALSE
MW-19	3/12/2001	ND<500	FALSE
MW-19	10/13/2001	ND<500	FALSE
MW-19	3/8/2002	ND<500	FALSE
MW-19	9/19/2002	ND<500	FALSE
MW-19	4/15/2003	ND<500	FALSE
MW-19	10/16/2003	ND<500	FALSE
MW-19	3/25/2004	ND<500	FALSE
MW-19	10/18/2006	ND<500	FALSE
MW-19	4/9/2007	ND<500	FALSE
MW-19	9/24/2007	17.2	FALSE
MW-19	5/2/2008	31.7	FALSE
MW-19	12/5/2008	31	FALSE
MW-19	4/15/2009	32.7	FALSE
MW-19	10/9/2009	22.1	FALSE
MW-19	4/30/2010	21.1	FALSE
MW-19	10/5/2010	17.1	FALSE
MW-19	5/12/2011	36.9	FALSE
MW-19	10/6/2011	40.8	FALSE
MW-19	4/19/2012	25	FALSE

MW-20	12/16/1997	ND<500	FALSE
MW-20	1/14/1998	ND<500	FALSE
MW-20	2/13/1998	ND<500	FALSE
MW-20	3/6/1998	ND<500	FALSE
MW-20	10/15/1998	ND<500	FALSE
MW-20	3/25/1999	ND<500	FALSE
MW-20	9/23/1999	ND<500	FALSE
MW-20	3/29/2000	ND<500	FALSE
MW-20	9/14/2000	ND<500	FALSE
MW-20	3/12/2001	ND<500	FALSE
MW-20	10/13/2001	ND<500	FALSE
MW-20	3/8/2002	ND<500	FALSE
MW-20	9/19/2002	ND<500	FALSE
MW-20	4/15/2003	ND<500	FALSE
MW-20	10/16/2003	ND<500	FALSE
MW-20	3/25/2004	ND<500	FALSE
MW-20	10/13/2006	ND<500	FALSE
MW-20	4/9/2007	ND<500	FALSE
MW-20	9/24/2007	39.2	FALSE
MW-20	5/2/2008	55.4	FALSE
MW-20	12/5/2008	63.6	FALSE
MW-20	4/15/2009	62.7	FALSE
MW-20	10/9/2009	76.4	FALSE
MW-20	4/30/2010	65.9	FALSE
MW-20	10/5/2010	60.1	FALSE
MW-20	5/12/2011	71.6	FALSE
MW-20	10/6/2011	64.7	FALSE
MW-20	4/19/2012	70.3	FALSE

MW-21	12/16/1997	ND<500	FALSE
MW-21	1/14/1998	ND<500	FALSE
MW-21	2/13/1998	ND<500	FALSE
MW-21	3/6/1998	ND<500	FALSE
MW-21	10/15/1998	ND<500	FALSE
MW-21	3/25/1999	ND<500	FALSE
MW-21	9/23/1999	ND<500	FALSE
MW-21	3/29/2000	ND<500	FALSE
MW-21	9/14/2000	ND<500	FALSE

MW-21	3/12/2001	ND<500	FALSE
MW-21	10/13/2001	ND<500	FALSE
MW-21	3/8/2002	ND<500	FALSE
MW-21	9/19/2002	ND<500	FALSE
MW-21	4/15/2003	ND<500	FALSE
MW-21	10/16/2003	ND<500	FALSE
MW-21	3/25/2004	ND<500	FALSE
MW-21	10/18/2006	ND<500	FALSE
MW-21	4/9/2007	ND<500	FALSE
MW-21	9/24/2007	30 7	FALSE
MW-21	5/2/2008	30	FALSE
MW-21	12/5/2008	30 1	FALSE
MW-21	4/15/2009	30 2	FALSE
MW-21	10/9/2009	35 9	FALSE
MW-21	4/30/2010	32 5	FALSE
MW-21	10/5/2010	33 7	FALSE
MW-21	5/12/2011	34 8	FALSE
MW-21	10/6/2011	36 4	FALSE
MW-21	4/19/2012	36 1	FALSE

MW-22	12/16/1997	ND<500	FALSE
MW-22	1/14/1998	ND<500	FALSE
MW-22	2/13/1998	ND<500	FALSE
MW-22	3/6/1998	ND<500	FALSE
MW-22	10/15/1998	ND<500	FALSE
MW-22	3/25/1999	ND<500	FALSE
MW-22	9/23/1999	ND<500	FALSE
MW-22	3/29/2000	ND<500	FALSE
MW-22	9/14/2000	ND<500	FALSE
MW-22	3/12/2001	ND<500	FALSE
MW-22	10/13/2001	ND<500	FALSE
MW-22	3/8/2002	ND<500	FALSE
MW-22	9/19/2002	ND<500	FALSE
MW-22	4/15/2003	ND<500	FALSE
MW-22	10/16/2003	ND<500	FALSE
MW-22	3/25/2004	ND<500	FALSE
MW-22	10/18/2006	ND<500	FALSE
MW-22	4/9/2007	ND<500	FALSE
MW-22	9/24/2007	80 4	FALSE
MW-22	5/2/2008	136	FALSE
MW-22	12/5/2008	78 5	FALSE
MW-22	4/15/2009	207	FALSE
MW-22	10/9/2009	96 4	FALSE
MW-22	4/30/2010	233	FALSE
MW-22	10/5/2010	107	FALSE
MW-22	5/12/2011	162	FALSE
MW-22	10/6/2011	112	FALSE
MW-22	4/19/2012	136	FALSE

MW-23	12/16/1997	ND<500	FALSE
MW-23	1/14/1998	ND<500	FALSE
MW-23	2/13/1998	ND<500	FALSE
MW-23	3/6/1998	ND<500	FALSE
MW-23	10/15/1998	ND<500	FALSE
MW-23	3/25/1999	ND<500	FALSE
MW-23	9/23/1999	ND<500	FALSE
MW-23	3/29/2000	ND<500	FALSE
MW-23	9/14/2000	ND<500	FALSE
MW-23	3/12/2001	ND<500	FALSE
MW-23	10/13/2001	ND<500	FALSE
MW-23	3/8/2002	ND<500	FALSE
MW-23	9/19/2002	ND<500	FALSE
MW-23	4/15/2003	ND<500	FALSE
MW-23	10/16/2003	ND<500	FALSE
MW-23	3/25/2004	ND<500	FALSE
MW-23	10/18/2006	ND<500	FALSE
MW-23	4/9/2007	ND<500	FALSE
MW-23	9/24/2007	60	FALSE
MW-23	5/2/2008	66 6	FALSE

MW-23	12/5/2008	61.4	FALSE
MW-23	4/15/2009	59.4	FALSE
MW-23	10/9/2009	65	FALSE
MW-23	4/30/2010	56.3	FALSE
MW-23	10/5/2010	53.7	FALSE
MW-23	5/12/2011	53.2	FALSE
MW-23	10/6/2011	53.4	FALSE
MW-23	4/19/2012	56.9	FALSE

MW-24	12/16/1997	ND<500	FALSE
MW-24	1/14/1998	ND<500	FALSE
MW-24	2/13/1998	ND<500	FALSE
MW-24	3/6/1998	ND<500	FALSE
MW-24	10/15/1998	ND<500	FALSE
MW-24	3/25/1999	ND<500	FALSE
MW-24	9/23/1999	ND<500	FALSE
MW-24	3/29/2000	ND<500	FALSE
MW-24	9/14/2000	ND<500	FALSE
MW-24	3/12/2001	ND<500	FALSE
MW-24	10/13/2001	ND<500	FALSE
MW-24	3/8/2002	ND<500	FALSE
MW-24	9/19/2002	ND<500	FALSE
MW-24	4/15/2003	ND<500	FALSE
MW-24	10/16/2003	ND<500	FALSE
MW-24	3/25/2004	ND<500	FALSE
MW-24	10/18/2006	ND<500	FALSE
MW-24	4/9/2007	332	FALSE
MW-24	9/24/2007	382	FALSE
MW-24	5/2/2008	444	FALSE
MW-24	12/5/2008	444	FALSE
MW-24	4/15/2009	447	FALSE
MW-24	10/9/2009	465	FALSE
MW-24	4/30/2010	429	FALSE
MW-24	10/5/2010	427	FALSE
MW-24	5/12/2011	383	FALSE
MW-24	10/6/2011	407	FALSE
MW-24	4/19/2012	393	FALSE

MW-25	12/16/1997	ND<500	FALSE
MW-25	1/14/1998	ND<500	FALSE
MW-25	2/13/1998	ND<500	FALSE
MW-25	3/6/1998	ND<500	FALSE
MW-25	10/15/1998	ND<500	FALSE
MW-25	3/25/1999	ND<500	FALSE
MW-25	9/23/1999	ND<500	FALSE
MW-25	3/29/2000	ND<500	FALSE
MW-25	9/14/2000	ND<500	FALSE
MW-25	3/12/2001	ND<500	FALSE
MW-25	10/13/2001	ND<500	FALSE
MW-25	3/8/2002	ND<500	FALSE
MW-25	9/19/2002	ND<500	FALSE
MW-25	4/15/2003	ND<500	FALSE
MW-25	10/16/2003	ND<500	FALSE
MW-25	3/25/2004	ND<500	FALSE
MW-25	10/18/2006	ND<500	FALSE
MW-25	4/9/2007	ND<500	FALSE
MW-25	9/24/2007	ND<500	FALSE
MW-25	5/2/2008	19.6	FALSE
MW-25	12/5/2008	ND<500	FALSE
MW-25	4/15/2009	22.8	FALSE
MW-25	10/9/2009	ND<500	FALSE
MW-25	4/30/2010	23.4	FALSE
MW-25	10/5/2010	ND<500	FALSE
MW-25	5/12/2011	22.7	FALSE
MW-25	10/6/2011	14.1	FALSE
MW-25	4/19/2012	ND<500	FALSE

MW-25d	12/16/1997	ND<500	FALSE
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MW-25d	1/14/1998	ND<500	FALSE
MW-25d	2/13/1998	ND<500	FALSE
MW-25d	3/6/1998	ND<500	FALSE
MW-25d	10/15/1998	ND<500	FALSE
MW-25d	3/25/1999	ND<500	FALSE
MW-25d	9/23/1999	ND<500	FALSE
MW-25d	3/29/2000	ND<500	FALSE
MW-25d	9/14/2000	ND<500	FALSE
MW-25d	3/12/2001	ND<500	FALSE
MW-25d	10/13/2001	ND<500	FALSE
MW-25d	3/8/2002	ND<500	FALSE
MW-25d	9/19/2002	ND<500	FALSE
MW-25d	4/15/2003	ND<500	FALSE
MW-25d	10/16/2003	ND<500	FALSE
MW-25d	3/25/2004	ND<500	FALSE
MW-25d	10/19/2006	ND<500	FALSE
MW-25d	4/9/2007	ND<500	FALSE
MW-25d	9/24/2007	13	FALSE
MW-25d	5/2/2008	16 2	FALSE
MW-25d	12/5/2008	12 4	FALSE
MW-25d	4/15/2009	19 1	FALSE
MW-25d	10/9/2009	13 5	FALSE
MW-25d	4/30/2010	13 5	FALSE
MW-25d	10/5/2010	11 3	FALSE
MW-25d	5/12/2011	15 3	FALSE
MW-25d	10/6/2011	13 8	FALSE
MW-25d	4/19/2012	14 6	FALSE

Non-Parametric Tolerance Interval

Parameter: Cobalt, total

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 88.3929%

Background measurements (n) = 56

Maximum Background Concentration = 10

Minimum Coverage = 95.1%

Average Coverage = 98.2456%

Location	Date	Value	Significant
MW-17	12/16/1997	ND<10	FALSE
MW-17	1/14/1998	ND<10	FALSE
MW-17	2/13/1998	ND<10	FALSE
MW-17	3/6/1998	ND<10	FALSE
MW-17	10/15/1998	ND<10	FALSE
MW-17	3/25/1999	ND<10	FALSE
MW-17	9/23/1999	ND<10	FALSE
MW-17	3/29/2000	ND<10	FALSE
MW-17	9/14/2000	ND<10	FALSE
MW-17	3/12/2001	ND<10	FALSE
MW-17	10/13/2001	ND<10	FALSE
MW-17	3/8/2002	ND<10	FALSE
MW-17	9/19/2002	ND<10	FALSE
MW-17	4/15/2003	ND<10	FALSE
MW-17	10/16/2003	ND<10	FALSE
MW-17	3/25/2004	ND<10	FALSE
MW-17	10/18/2006	ND<10	FALSE
MW-17	4/9/2007	ND<10	FALSE
MW-17	9/24/2007	ND<10	FALSE
MW-17	5/2/2008	ND<10	FALSE
MW-17	12/5/2008	ND<10	FALSE
MW-17	4/15/2009	ND<10	FALSE
MW-17	10/9/2009	ND<10	FALSE
MW-17	4/30/2010	ND<10	FALSE
MW-17	10/5/2010	ND<10	FALSE
MW-17	5/12/2011	ND<10	FALSE
MW-17	10/6/2011	ND<10	FALSE
MW-17	4/19/2012	ND<10	FALSE

MW-18	12/16/1997	ND<10	FALSE
MW-18	1/14/1998	ND<10	FALSE
MW-18	2/13/1998	ND<10	FALSE
MW-18	3/6/1998	ND<10	FALSE
MW-18	10/15/1998	ND<10	FALSE
MW-18	3/25/1999	ND<10	FALSE
MW-18	9/23/1999	ND<10	FALSE
MW-18	3/29/2000	ND<10	FALSE
MW-18	9/14/2000	ND<10	FALSE
MW-18	3/12/2001	ND<10	FALSE
MW-18	10/13/2001	ND<10	FALSE
MW-18	3/8/2002	ND<10	FALSE
MW-18	9/19/2002	ND<10	FALSE
MW-18	4/15/2003	ND<10	FALSE
MW-18	10/16/2003	12	TRUE
MW-18	3/25/2004	12	TRUE
MW-18	10/18/2006	10.7	TRUE
MW-18	4/9/2007	ND<10	FALSE
MW-18	9/24/2007	ND<10	FALSE
MW-18	5/2/2008	3.9	FALSE
MW-18	12/5/2008	9.1	FALSE
MW-18	4/15/2009	8.7	FALSE
MW-18	10/9/2009	5.89	FALSE
MW-18	4/30/2010	3.25	FALSE
MW-18	10/5/2010	2.04	FALSE
MW-18	5/12/2011	3.85	FALSE
MW-18	10/6/2011	1.15	FALSE
MW-18	4/19/2012	1.2	FALSE

MW-19	12/16/1997	ND<10	FALSE
MW-19	1/14/1998	ND<10	FALSE
MW-19	2/13/1998	3	FALSE
MW-19	3/6/1998	ND<10	FALSE
MW-19	10/15/1998	ND<10	FALSE
MW-19	3/25/1999	ND<10	FALSE
MW-19	9/23/1999	ND<10	FALSE
MW-19	3/29/2000	ND<10	FALSE
MW-19	9/14/2000	ND<10	FALSE
MW-19	3/12/2001	ND<10	FALSE
MW-19	10/13/2001	ND<10	FALSE
MW-19	3/8/2002	ND<10	FALSE
MW-19	9/19/2002	ND<10	FALSE
MW-19	4/15/2003	ND<10	FALSE
MW-19	10/16/2003	ND<10	FALSE
MW-19	3/25/2004	ND<10	FALSE
MW-19	10/18/2006	ND<10	FALSE
MW-19	4/9/2007	ND<10	FALSE
MW-19	9/24/2007	ND<10	FALSE
MW-19	5/2/2008	ND<10	FALSE
MW-19	12/5/2008	1 2	FALSE
MW-19	4/15/2009	ND<10	FALSE
MW-19	10/9/2009	1 34	FALSE
MW-19	4/30/2010	ND<10	FALSE
MW-19	10/5/2010	ND<10	FALSE
MW-19	5/12/2011	ND<10	FALSE
MW-19	10/6/2011	ND<10	FALSE
MW-19	4/19/2012	ND<10	FALSE

MW-20	12/16/1997	ND<10	FALSE
MW-20	1/14/1998	ND<10	FALSE
MW-20	2/13/1998	ND<10	FALSE
MW-20	3/6/1998	ND<10	FALSE
MW-20	10/15/1998	ND<10	FALSE
MW-20	3/25/1999	ND<10	FALSE
MW-20	9/23/1999	ND<10	FALSE
MW-20	3/29/2000	ND<10	FALSE
MW-20	9/14/2000	ND<10	FALSE
MW-20	3/12/2001	ND<10	FALSE
MW-20	10/13/2001	ND<10	FALSE
MW-20	3/8/2002	ND<10	FALSE
MW-20	9/19/2002	ND<10	FALSE
MW-20	4/15/2003	ND<10	FALSE
MW-20	10/16/2003	ND<10	FALSE
MW-20	3/25/2004	ND<10	FALSE
MW-20	10/13/2006	ND<10	FALSE
MW-20	4/9/2007	ND<10	FALSE
MW-20	9/24/2007	ND<10	FALSE
MW-20	5/2/2008	ND<10	FALSE
MW-20	12/5/2008	3	FALSE
MW-20	4/15/2009	ND<10	FALSE
MW-20	10/9/2009	1.1	FALSE
MW-20	4/30/2010	ND<10	FALSE
MW-20	10/5/2010	ND<10	FALSE
MW-20	5/12/2011	ND<10	FALSE
MW-20	10/6/2011	ND<10	FALSE
MW-20	4/19/2012	ND<10	FALSE

MW-21	12/16/1997	ND<10	FALSE
MW-21	1/14/1998	ND<10	FALSE
MW-21	2/13/1998	ND<10	FALSE
MW-21	3/6/1998	ND<10	FALSE
MW-21	10/15/1998	ND<10	FALSE
MW-21	3/25/1999	ND<10	FALSE
MW-21	9/23/1999	ND<10	FALSE
MW-21	3/29/2000	ND<10	FALSE
MW-21	9/14/2000	ND<10	FALSE

MW-21	3/12/2001	ND<10	FALSE
MW-21	10/13/2001	ND<10	FALSE
MW-21	3/8/2002	ND<10	FALSE
MW-21	9/19/2002	ND<10	FALSE
MW-21	4/15/2003	ND<10	FALSE
MW-21	10/16/2003	ND<10	FALSE
MW-21	3/25/2004	ND<10	FALSE
MW-21	10/18/2006	ND<10	FALSE
MW-21	4/9/2007	ND<10	FALSE
MW-21	9/24/2007	ND<10	FALSE
MW-21	5/2/2008	2 3	FALSE
MW-21	12/5/2008	2 2	FALSE
MW-21	4/15/2009	ND<10	FALSE
MW-21	10/9/2009	ND<10	FALSE
MW-21	4/30/2010	ND<10	FALSE
MW-21	10/5/2010	ND<10	FALSE
MW-21	5/12/2011	ND<10	FALSE
MW-21	10/6/2011	ND<10	FALSE
MW-21	4/19/2012	ND<10	FALSE

MW-22	12/16/1997	ND<10	FALSE
MW-22	1/14/1998	ND<10	FALSE
MW-22	2/13/1998	ND<10	FALSE
MW-22	3/6/1998	ND<10	FALSE
MW-22	10/15/1998	ND<10	FALSE
MW-22	3/25/1999	ND<10	FALSE
MW-22	9/23/1999	ND<10	FALSE
MW-22	3/29/2000	ND<10	FALSE
MW-22	9/14/2000	ND<10	FALSE
MW-22	3/12/2001	ND<10	FALSE
MW-22	10/13/2001	ND<10	FALSE
MW-22	3/8/2002	ND<10	FALSE
MW-22	9/19/2002	ND<10	FALSE
MW-22	4/15/2003	ND<10	FALSE
MW-22	10/16/2003	ND<10	FALSE
MW-22	3/25/2004	ND<10	FALSE
MW-22	10/18/2006	ND<10	FALSE
MW-22	4/9/2007	ND<10	FALSE
MW-22	9/24/2007	ND<10	FALSE
MW-22	5/2/2008	ND<10	FALSE
MW-22	12/5/2008	1 4	FALSE
MW-22	4/15/2009	ND<10	FALSE
MW-22	10/9/2009	ND<10	FALSE
MW-22	4/30/2010	ND<10	FALSE
MW-22	10/5/2010	ND<10	FALSE
MW-22	5/12/2011	ND<10	FALSE
MW-22	10/6/2011	ND<10	FALSE
MW-22	4/19/2012	ND<10	FALSE

MW-23	12/16/1997	ND<10	FALSE
MW-23	1/14/1998	ND<10	FALSE
MW-23	2/13/1998	ND<10	FALSE
MW-23	3/6/1998	ND<10	FALSE
MW-23	10/15/1998	ND<10	FALSE
MW-23	3/25/1999	ND<10	FALSE
MW-23	9/23/1999	ND<10	FALSE
MW-23	3/29/2000	ND<10	FALSE
MW-23	9/14/2000	ND<10	FALSE
MW-23	3/12/2001	ND<10	FALSE
MW-23	10/13/2001	ND<10	FALSE
MW-23	3/8/2002	ND<10	FALSE
MW-23	9/19/2002	ND<10	FALSE
MW-23	4/15/2003	ND<10	FALSE
MW-23	10/16/2003	ND<10	FALSE
MW-23	3/25/2004	ND<10	FALSE
MW-23	10/18/2006	ND<10	FALSE
MW-23	4/9/2007	ND<10	FALSE
MW-23	9/24/2007	ND<10	FALSE
MW-23	5/2/2008	ND<10	FALSE

MW-23	12/5/2008	ND<10	FALSE
MW-23	4/15/2009	ND<10	FALSE
MW-23	10/9/2009	ND<10	FALSE
MW-23	4/30/2010	ND<10	FALSE
MW-23	10/5/2010	ND<10	FALSE
MW-23	5/12/2011	ND<10	FALSE
MW-23	10/6/2011	ND<10	FALSE
MW-23	4/19/2012	ND<10	FALSE

MW-24	12/16/1997	ND<10	FALSE
MW-24	1/14/1998	ND<10	FALSE
MW-24	2/13/1998	ND<10	FALSE
MW-24	3/6/1998	ND<10	FALSE
MW-24	10/15/1998	ND<10	FALSE
MW-24	3/25/1999	ND<10	FALSE
MW-24	9/23/1999	ND<10	FALSE
MW-24	3/29/2000	ND<10	FALSE
MW-24	9/14/2000	ND<10	FALSE
MW-24	3/12/2001	ND<10	FALSE
MW-24	10/13/2001	ND<10	FALSE
MW-24	3/8/2002	ND<10	FALSE
MW-24	9/19/2002	ND<10	FALSE
MW-24	4/15/2003	ND<10	FALSE
MW-24	10/16/2003	ND<10	FALSE
MW-24	3/25/2004	ND<10	FALSE
MW-24	10/18/2006	ND<10	FALSE
MW-24	4/9/2007	ND<10	FALSE
MW-24	9/24/2007	2.9	FALSE
MW-24	5/2/2008	4.8	FALSE
MW-24	12/5/2008	4.3	FALSE
MW-24	4/15/2009	1.4	FALSE
MW-24	10/9/2009	6.23	FALSE
MW-24	4/30/2010	9.33	FALSE
MW-24	10/5/2010	4.47	FALSE
MW-24	5/12/2011	3.64	FALSE
MW-24	10/6/2011	6.28	FALSE
MW-24	4/19/2012	5.33	FALSE

MW-25	12/16/1997	ND<10	FALSE
MW-25	1/14/1998	ND<10	FALSE
MW-25	2/13/1998	ND<10	FALSE
MW-25	3/6/1998	ND<10	FALSE
MW-25	10/15/1998	ND<10	FALSE
MW-25	3/25/1999	ND<10	FALSE
MW-25	9/23/1999	ND<10	FALSE
MW-25	3/29/2000	ND<10	FALSE
MW-25	9/14/2000	ND<10	FALSE
MW-25	3/12/2001	ND<10	FALSE
MW-25	10/13/2001	ND<10	FALSE
MW-25	3/8/2002	ND<10	FALSE
MW-25	9/19/2002	ND<10	FALSE
MW-25	4/15/2003	12	TRUE
MW-25	10/16/2003	ND<10	FALSE
MW-25	3/25/2004	ND<10	FALSE
MW-25	10/18/2006	ND<10	FALSE
MW-25	4/9/2007	ND<10	FALSE
MW-25	9/24/2007	ND<10	FALSE
MW-25	5/2/2008	ND<10	FALSE
MW-25	12/5/2008	ND<10	FALSE
MW-25	4/15/2009	ND<10	FALSE
MW-25	10/9/2009	ND<10	FALSE
MW-25	4/30/2010	ND<10	FALSE
MW-25	10/5/2010	ND<10	FALSE
MW-25	5/12/2011	ND<10	FALSE
MW-25	10/6/2011	ND<10	FALSE
MW-25	4/19/2012	ND<10	FALSE

MW-25d	12/16/1997	ND<10	FALSE
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MW-25d	1/14/1998	ND<10	FALSE
MW-25d	2/13/1998	ND<10	FALSE
MW-25d	3/6/1998	ND<10	FALSE
MW-25d	10/15/1998	ND<10	FALSE
MW-25d	3/25/1999	ND<10	FALSE
MW-25d	9/23/1999	ND<10	FALSE
MW-25d	3/29/2000	ND<10	FALSE
MW-25d	9/14/2000	ND<10	FALSE
MW-25d	3/12/2001	ND<10	FALSE
MW-25d	10/13/2001	ND<10	FALSE
MW-25d	3/8/2002	ND<10	FALSE
MW-25d	9/19/2002	ND<10	FALSE
MW-25d	4/15/2003	14	TRUE
MW-25d	10/16/2003	ND<10	FALSE
MW-25d	3/25/2004	ND<10	FALSE
MW-25d	10/18/2006	ND<10	FALSE
MW-25d	4/9/2007	ND<10	FALSE
MW-25d	9/24/2007	ND<10	FALSE
MW-25d	5/2/2008	ND<10	FALSE
MW-25d	12/5/2008	ND<10	FALSE
MW-25d	4/15/2009	ND<10	FALSE
MW-25d	10/9/2009	ND<10	FALSE
MW-25d	4/30/2010	ND<10	FALSE
MW-25d	10/5/2010	ND<10	FALSE
MW-25d	5/12/2011	ND<10	FALSE
MW-25d	10/6/2011	ND<10	FALSE
MW-25d	4/19/2012	ND<10	FALSE

Non-Parametric Tolerance Interval

Parameter: Copper, total

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 87.7976%

Background measurements (n) = 56

Maximum Background Concentration = 200

Minimum Coverage = 95.1%

Average Coverage = 98.2456%

Location	Date	Value	Significant
MW-17	12/16/1997	ND<200	FALSE
MW-17	1/14/1998	ND<200	FALSE
MW-17	2/13/1998	ND<200	FALSE
MW-17	3/6/1998	ND<200	FALSE
MW-17	10/15/1998	ND<200	FALSE
MW-17	3/25/1999	ND<200	FALSE
MW-17	9/23/1999	ND<200	FALSE
MW-17	3/29/2000	ND<200	FALSE
MW-17	9/14/2000	ND<200	FALSE
MW-17	3/12/2001	ND<200	FALSE
MW-17	10/13/2001	ND<200	FALSE
MW-17	3/8/2002	ND<200	FALSE
MW-17	9/19/2002	ND<200	FALSE
MW-17	4/15/2003	ND<200	FALSE
MW-17	10/16/2003	ND<200	FALSE
MW-17	3/25/2004	ND<200	FALSE
MW-17	10/18/2006	ND<200	FALSE
MW-17	4/9/2007	ND<200	FALSE
MW-17	9/24/2007	ND<200	FALSE
MW-17	5/2/2008	1.9	FALSE
MW-17	12/5/2008	ND<200	FALSE
MW-17	4/15/2009	ND<200	FALSE
MW-17	10/9/2009	ND<200	FALSE
MW-17	4/30/2010	2.63	FALSE
MW-17	10/5/2010	ND<200	FALSE
MW-17	5/12/2011	ND<200	FALSE
MW-17	10/6/2011	ND<200	FALSE
MW-17	4/19/2012	ND<200	FALSE

MW-18	12/16/1997	ND<200	FALSE
MW-18	1/14/1998	ND<200	FALSE
MW-18	2/13/1998	ND<200	FALSE
MW-18	3/6/1998	ND<200	FALSE
MW-18	10/15/1998	ND<200	FALSE
MW-18	3/25/1999	ND<200	FALSE
MW-18	9/23/1999	ND<200	FALSE
MW-18	3/29/2000	ND<200	FALSE
MW-18	9/14/2000	ND<200	FALSE
MW-18	3/12/2001	ND<200	FALSE
MW-18	10/13/2001	ND<200	FALSE
MW-18	3/8/2002	ND<200	FALSE
MW-18	9/19/2002	ND<200	FALSE
MW-18	4/15/2003	ND<200	FALSE
MW-18	10/16/2003	ND<200	FALSE
MW-18	3/25/2004	ND<200	FALSE
MW-18	10/18/2006	ND<200	FALSE
MW-18	4/9/2007	ND<200	FALSE
MW-18	9/24/2007	ND<200	FALSE
MW-18	5/2/2008	4.7	FALSE
MW-18	12/5/2008	ND<200	FALSE
MW-18	4/15/2009	ND<200	FALSE
MW-18	10/9/2009	ND<200	FALSE
MW-18	4/30/2010	1.94	FALSE
MW-18	10/5/2010	ND<200	FALSE
MW-18	5/12/2011	3.67	FALSE
MW-18	10/6/2011	2.67	FALSE
MW-18	4/19/2012	ND<200	FALSE

MW-19	12/16/1997	ND<200	FALSE
MW-19	1/14/1998	ND<200	FALSE
MW-19	2/13/1998	19	FALSE
MW-19	3/6/1998	ND<200	FALSE
MW-19	10/15/1998	ND<200	FALSE
MW-19	3/25/1999	ND<200	FALSE
MW-19	9/23/1999	ND<200	FALSE
MW-19	3/29/2000	ND<200	FALSE
MW-19	9/14/2000	ND<200	FALSE
MW-19	3/12/2001	ND<200	FALSE
MW-19	10/13/2001	ND<200	FALSE
MW-19	3/8/2002	ND<200	FALSE
MW-19	9/19/2002	ND<200	FALSE
MW-19	4/15/2003	ND<200	FALSE
MW-19	10/16/2003	ND<200	FALSE
MW-19	3/25/2004	ND<200	FALSE
MW-19	10/18/2006	ND<200	FALSE
MW-19	4/9/2007	ND<200	FALSE
MW-19	9/24/2007	ND<200	FALSE
MW-19	5/2/2008	1.8	FALSE
MW-19	12/5/2008	2.8	FALSE
MW-19	4/15/2009	ND<200	FALSE
MW-19	10/9/2009	ND<200	FALSE
MW-19	4/30/2010	ND<200	FALSE
MW-19	10/5/2010	ND<200	FALSE
MW-19	5/12/2011	3.52	FALSE
MW-19	10/6/2011	ND<200	FALSE
MW-19	4/19/2012	ND<200	FALSE

MW-20	12/16/1997	ND<200	FALSE
MW-20	1/14/1998	ND<200	FALSE
MW-20	2/13/1998	ND<200	FALSE
MW-20	3/6/1998	ND<200	FALSE
MW-20	10/15/1998	ND<200	FALSE
MW-20	3/25/1999	ND<200	FALSE
MW-20	9/23/1999	ND<200	FALSE
MW-20	3/29/2000	ND<200	FALSE
MW-20	9/14/2000	ND<200	FALSE
MW-20	3/12/2001	ND<200	FALSE
MW-20	10/13/2001	ND<200	FALSE
MW-20	3/8/2002	ND<200	FALSE
MW-20	9/19/2002	ND<200	FALSE
MW-20	4/15/2003	ND<200	FALSE
MW-20	10/16/2003	ND<200	FALSE
MW-20	3/25/2004	ND<200	FALSE
MW-20	10/18/2006	ND<200	FALSE
MW-20	4/9/2007	ND<200	FALSE
MW-20	9/24/2007	1	FALSE
MW-20	5/2/2008	0.6	FALSE
MW-20	12/5/2008	3.6	FALSE
MW-20	4/15/2009	ND<200	FALSE
MW-20	10/9/2009	ND<200	FALSE
MW-20	4/30/2010	ND<200	FALSE
MW-20	10/5/2010	ND<200	FALSE
MW-20	5/12/2011	ND<200	FALSE
MW-20	10/6/2011	ND<200	FALSE
MW-20	4/19/2012	ND<200	FALSE

MW-21	12/16/1997	ND<200	FALSE
MW-21	1/14/1998	ND<200	FALSE
MW-21	2/13/1998	ND<200	FALSE
MW-21	3/6/1998	ND<200	FALSE
MW-21	10/15/1998	ND<200	FALSE
MW-21	3/25/1999	ND<200	FALSE
MW-21	9/23/1999	ND<200	FALSE
MW-21	3/29/2000	ND<200	FALSE
MW-21	9/14/2000	ND<200	FALSE

MW-21	3/12/2001	ND<200	FALSE
MW-21	10/13/2001	ND<200	FALSE
MW-21	3/8/2002	ND<200	FALSE
MW-21	9/19/2002	ND<200	FALSE
MW-21	4/15/2003	ND<200	FALSE
MW-21	10/16/2003	ND<200	FALSE
MW-21	3/25/2004	ND<200	FALSE
MW-21	10/18/2006	ND<200	FALSE
MW-21	4/9/2007	ND<200	FALSE
MW-21	9/24/2007	ND<200	FALSE
MW-21	5/2/2008	2 2	FALSE
MW-21	12/5/2008	2 3	FALSE
MW-21	4/15/2009	ND<200	FALSE
MW-21	10/9/2009	2 22	FALSE
MW-21	4/30/2010	ND<200	FALSE
MW-21	10/5/2010	ND<200	FALSE
MW-21	5/12/2011	ND<200	FALSE
MW-21	10/6/2011	ND<200	FALSE
MW-21	4/19/2012	5 29	FALSE

MW-22	12/16/1997	ND<200	FALSE
MW-22	1/14/1998	ND<200	FALSE
MW-22	2/13/1998	ND<200	FALSE
MW-22	3/6/1998	ND<200	FALSE
MW-22	10/15/1998	ND<200	FALSE
MW-22	3/25/1999	ND<200	FALSE
MW-22	9/23/1999	ND<200	FALSE
MW-22	3/29/2000	ND<200	FALSE
MW-22	9/14/2000	ND<200	FALSE
MW-22	3/12/2001	ND<200	FALSE
MW-22	10/13/2001	ND<200	FALSE
MW-22	3/8/2002	ND<200	FALSE
MW-22	9/19/2002	ND<200	FALSE
MW-22	4/15/2003	ND<200	FALSE
MW-22	10/16/2003	ND<200	FALSE
MW-22	3/25/2004	ND<200	FALSE
MW-22	10/18/2006	ND<200	FALSE
MW-22	4/9/2007	ND<200	FALSE
MW-22	9/24/2007	ND<200	FALSE
MW-22	5/2/2008	ND<200	FALSE
MW-22	12/5/2008	ND<200	FALSE
MW-22	4/15/2009	1 62	FALSE
MW-22	10/9/2009	ND<200	FALSE
MW-22	4/30/2010	ND<200	FALSE
MW-22	10/5/2010	ND<200	FALSE
MW-22	5/12/2011	ND<200	FALSE
MW-22	10/6/2011	2 12	FALSE
MW-22	4/19/2012	ND<200	FALSE

MW-23	12/16/1997	ND<200	FALSE
MW-23	1/14/1998	ND<200	FALSE
MW-23	2/13/1998	ND<200	FALSE
MW-23	3/6/1998	ND<200	FALSE
MW-23	10/15/1998	ND<200	FALSE
MW-23	3/25/1999	ND<200	FALSE
MW-23	9/23/1999	ND<200	FALSE
MW-23	3/29/2000	ND<200	FALSE
MW-23	9/14/2000	ND<200	FALSE
MW-23	3/12/2001	ND<200	FALSE
MW-23	10/13/2001	ND<200	FALSE
MW-23	3/8/2002	ND<200	FALSE
MW-23	9/19/2002	ND<200	FALSE
MW-23	4/15/2003	ND<200	FALSE
MW-23	10/16/2003	ND<200	FALSE
MW-23	3/25/2004	ND<200	FALSE
MW-23	10/18/2006	ND<200	FALSE
MW-23	4/9/2007	ND<200	FALSE
MW-23	9/24/2007	ND<200	FALSE
MW-23	5/2/2008	0 8	FALSE

MW-23	12/5/2008	ND<200	FALSE
MW-23	4/15/2009	ND<200	FALSE
MW-23	10/9/2009	ND<200	FALSE
MW-23	4/30/2010	ND<200	FALSE
MW-23	10/5/2010	ND<200	FALSE
MW-23	5/12/2011	ND<200	FALSE
MW-23	10/6/2011	ND<200	FALSE
MW-23	4/19/2012	ND<200	FALSE

MW-24	12/16/1997	ND<200	FALSE
MW-24	1/14/1998	ND<200	FALSE
MW-24	2/13/1998	ND<200	FALSE
MW-24	3/6/1998	ND<200	FALSE
MW-24	10/15/1998	ND<200	FALSE
MW-24	3/25/1999	ND<200	FALSE
MW-24	9/23/1999	ND<200	FALSE
MW-24	3/29/2000	ND<200	FALSE
MW-24	9/14/2000	ND<200	FALSE
MW-24	3/12/2001	ND<200	FALSE
MW-24	10/13/2001	ND<200	FALSE
MW-24	3/3/2002	ND<200	FALSE
MW-24	9/19/2002	ND<200	FALSE
MW-24	4/15/2003	ND<200	FALSE
MW-24	10/16/2003	ND<200	FALSE
MW-24	3/25/2004	ND<200	FALSE
MW-24	10/18/2006	ND<200	FALSE
MW-24	4/9/2007	ND<200	FALSE
MW-24	9/24/2007	ND<200	FALSE
MW-24	5/2/2008	11 1	FALSE
MW-24	12/5/2008	9 2	FALSE
MW-24	4/15/2009	ND<200	FALSE
MW-24	10/9/2009	7.11	FALSE
MW-24	4/30/2010	2.64	FALSE
MW-24	10/5/2010	ND<200	FALSE
MW-24	5/12/2011	154	FALSE
MW-24	10/6/2011	21.3	FALSE
MW-24	4/19/2012	13 1	FALSE

MW-25	12/16/1997	ND<200	FALSE
MW-25	1/14/1998	ND<200	FALSE
MW-25	2/13/1998	ND<200	FALSE
MW-25	3/6/1998	ND<200	FALSE
MW-25	10/15/1998	ND<200	FALSE
MW-25	3/25/1999	ND<200	FALSE
MW-25	9/23/1999	ND<200	FALSE
MW-25	3/29/2000	ND<200	FALSE
MW-25	9/14/2000	ND<200	FALSE
MW-25	3/12/2001	ND<200	FALSE
MW-25	10/13/2001	ND<200	FALSE
MW-25	3/3/2002	ND<200	FALSE
MW-25	9/19/2002	ND<200	FALSE
MW-25	4/15/2003	ND<200	FALSE
MW-25	10/16/2003	ND<200	FALSE
MW-25	3/25/2004	ND<200	FALSE
MW-25	10/18/2006	ND<200	FALSE
MW-25	4/9/2007	ND<200	FALSE
MW-25	9/24/2007	ND<200	FALSE
MW-25	5/2/2008	2 9	FALSE
MW-25	12/5/2008	ND<200	FALSE
MW-25	4/15/2009	0 98	FALSE
MW-25	10/9/2009	ND<200	FALSE
MW-25	4/30/2010	6.56	FALSE
MW-25	10/5/2010	ND<200	FALSE
MW-25	5/12/2011	2.55	FALSE
MW-25	10/6/2011	ND<200	FALSE
MW-25	4/19/2012	ND<200	FALSE

MW-25d	12/16/1997	ND<200	FALSE
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MW-25d	1/14/1998	ND<200	FALSE
MW-25d	2/13/1998	ND<200	FALSE
MW-25d	3/6/1998	ND<200	FALSE
MW-25d	10/15/1998	ND<200	FALSE
MW-25d	3/25/1999	ND<200	FALSE
MW-25d	9/23/1999	ND<200	FALSE
MW-25d	3/29/2000	ND<200	FALSE
MW-25d	9/14/2000	ND<200	FALSE
MW-25d	3/12/2001	ND<200	FALSE
MW-25d	10/13/2001	ND<200	FALSE
MW-25d	3/8/2002	ND<200	FALSE
MW-25d	9/19/2002	ND<200	FALSE
MW-25d	4/15/2003	ND<200	FALSE
MW-25d	10/16/2003	ND<200	FALSE
MW-25d	3/25/2004	ND<200	FALSE
MW-25d	10/18/2006	ND<200	FALSE
MW-25d	4/9/2007	ND<200	FALSE
MW-25d	9/24/2007	ND<200	FALSE
MW-25d	5/2/2008	ND<200	FALSE
MW-25d	12/5/2008	ND<200	FALSE
MW-25d	4/15/2009	ND<200	FALSE
MW-25d	10/9/2009	ND<200	FALSE
MW-25d	4/30/2010	ND<200	FALSE
MW-25d	10/5/2010	ND<200	FALSE
MW-25d	5/12/2011	1 66	FALSE
MW-25d	10/6/2011	ND<200	FALSE
MW-25d	4/19/2012	ND<200	FALSE

Non-Parametric Tolerance Interval

Parameter: Vanadium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 79.8851%

Background measurements (n) = 58

Maximum Background Concentration = 40

Minimum Coverage = 95.1%

Average Coverage = 98.3051%

Location	Date	Value	Significant
MW-17	12/16/1997	ND<40	FALSE
MW-17	1/14/1998	ND<40	FALSE
MW-17	2/13/1998	ND<40	FALSE
MW-17	3/6/1998	ND<40	FALSE
MW-17	10/15/1998	ND<40	FALSE
MW-17	3/25/1999	ND<40	FALSE
MW-17	9/23/1999	ND<40	FALSE
MW-17	3/29/2000	ND<40	FALSE
MW-17	9/14/2000	ND<40	FALSE
MW-17	3/12/2001	ND<40	FALSE
MW-17	10/13/2001	ND<40	FALSE
MW-17	3/8/2002	ND<40	FALSE
MW-17	9/19/2002	ND<40	FALSE
MW-17	4/15/2003	ND<40	FALSE
MW-17	10/16/2003	ND<40	FALSE
MW-17	3/25/2004	ND<40	FALSE
MW-17	10/22/2004	ND<40	FALSE
MW-17	10/18/2006	ND<40	FALSE
MW-17	4/9/2007	ND<40	FALSE
MW-17	9/24/2007	1.4	FALSE
MW-17	5/2/2008	2	FALSE
MW-17	12/5/2008	2.6	FALSE
MW-17	4/15/2009	3	FALSE
MW-17	10/9/2009	2.31	FALSE
MW-17	4/30/2010	2.07	FALSE
MW-17	10/5/2010	2.36	FALSE
MW-17	5/12/2011	2.36	FALSE
MW-17	10/6/2011	2.46	FALSE
MW-17	4/19/2012	1.79	FALSE

MW-18	12/16/1997	ND<40	FALSE
MW-18	1/14/1998	ND<40	FALSE
MW-18	2/13/1998	ND<40	FALSE
MW-18	3/6/1998	ND<40	FALSE
MW-18	10/15/1998	ND<40	FALSE
MW-18	3/25/1999	ND<40	FALSE
MW-18	9/23/1999	ND<40	FALSE
MW-18	3/29/2000	ND<40	FALSE
MW-18	9/14/2000	ND<40	FALSE
MW-18	3/12/2001	ND<40	FALSE
MW-18	10/13/2001	ND<40	FALSE
MW-18	3/8/2002	ND<40	FALSE
MW-18	9/19/2002	ND<40	FALSE
MW-18	4/15/2003	ND<40	FALSE
MW-18	10/16/2003	ND<40	FALSE
MW-18	3/25/2004	ND<40	FALSE
MW-18	10/22/2004	ND<40	FALSE
MW-18	10/18/2006	ND<40	FALSE
MW-18	4/9/2007	ND<40	FALSE
MW-18	9/24/2007	9.9	FALSE
MW-18	5/2/2008	2.1	FALSE
MW-18	12/5/2008	3.1	FALSE
MW-18	4/15/2009	2.5	FALSE
MW-18	10/9/2009	2.48	FALSE
MW-18	4/30/2010	ND<40	FALSE
MW-18	10/5/2010	1.83	FALSE
MW-18	5/12/2011	1.92	FALSE

MW-18	10/6/2011	ND<40	FALSE
MW-18	4/19/2012	ND<40	FALSE

MW-19	12/16/1997	ND<40	FALSE
MW-19	1/14/1998	ND<40	FALSE
MW-19	2/13/1998	64	TRUE
MW-19	3/6/1998	ND<40	FALSE
MW-19	10/15/1998	ND<40	FALSE
MW-19	3/25/1999	ND<40	FALSE
MW-19	9/23/1999	ND<40	FALSE
MW-19	3/29/2000	ND<40	FALSE
MW-19	9/14/2000	ND<40	FALSE
MW-19	3/12/2001	ND<40	FALSE
MW-19	10/13/2001	ND<40	FALSE
MW-19	3/8/2002	ND<40	FALSE
MW-19	9/19/2002	ND<40	FALSE
MW-19	4/15/2003	ND<40	FALSE
MW-19	10/16/2003	ND<40	FALSE
MW-19	3/25/2004	ND<40	FALSE
MW-19	10/22/2004	ND<40	FALSE
MW-19	10/18/2006	ND<40	FALSE
MW-19	4/9/2007	ND<40	FALSE
MW-19	9/24/2007	3 9	FALSE
MW-19	5/2/2008	5	FALSE
MW-19	12/5/2008	3 6	FALSE
MW-19	4/15/2009	4 7	FALSE
MW-19	10/9/2009	5 42	FALSE
MW-19	4/30/2010	3 95	FALSE
MW-19	10/5/2010	4 04	FALSE
MW-19	5/12/2011	7 24	FALSE
MW-19	10/6/2011	5 38	FALSE
MW-19	4/19/2012	5 48	FALSE

MW-20	12/16/1997	ND<40	FALSE
MW-20	1/14/1998	ND<40	FALSE
MW-20	2/13/1998	ND<40	FALSE
MW-20	3/6/1998	ND<40	FALSE
MW-20	10/15/1998	ND<40	FALSE
MW-20	3/25/1999	ND<40	FALSE
MW-20	9/23/1999	ND<40	FALSE
MW-20	3/29/2000	ND<40	FALSE
MW-20	9/14/2000	ND<40	FALSE
MW-20	3/12/2001	ND<40	FALSE
MW-20	10/13/2001	ND<40	FALSE
MW-20	3/8/2002	ND<40	FALSE
MW-20	9/19/2002	ND<40	FALSE
MW-20	4/15/2003	ND<40	FALSE
MW-20	10/16/2003	ND<40	FALSE
MW-20	3/25/2004	ND<40	FALSE
MW-20	10/22/2004	ND<40	FALSE
MW-20	10/18/2006	ND<40	FALSE
MW-20	4/9/2007	ND<40	FALSE
MW-20	9/24/2007	2 3	FALSE
MW-20	5/2/2008	5 1	FALSE
MW-20	12/5/2008	6	FALSE
MW-20	4/15/2009	5 7	FALSE
MW-20	10/9/2009	6 8	FALSE
MW-20	4/30/2010	5 12	FALSE
MW-20	10/5/2010	5 31	FALSE
MW-20	5/12/2011	6 25	FALSE
MW-20	10/6/2011	5 58	FALSE
MW-20	4/19/2012	5 56	FALSE

MW-21	12/16/1997	ND<40	FALSE
MW-21	1/14/1998	ND<40	FALSE
MW-21	2/13/1998	ND<40	FALSE
MW-21	3/6/1998	ND<40	FALSE
MW-21	10/15/1998	ND<40	FALSE

MW-21	3/25/1999	ND<40	FALSE
MW-21	9/23/1999	ND<40	FALSE
MW-21	3/29/2000	ND<40	FALSE
MW-21	9/14/2000	ND<40	FALSE
MW-21	3/12/2001	ND<40	FALSE
MW-21	10/13/2001	ND<40	FALSE
MW-21	3/8/2002	ND<40	FALSE
MW-21	9/19/2002	ND<40	FALSE
MW-21	4/15/2003	ND<40	FALSE
MW-21	10/16/2003	ND<40	FALSE
MW-21	3/25/2004	ND<40	FALSE
MW-21	10/22/2004	ND<40	FALSE
MW-21	10/18/2006	ND<40	FALSE
MW-21	4/9/2007	ND<40	FALSE
MW-21	9/24/2007	ND<40	FALSE
MW-21	5/2/2008	2 6	FALSE
MW-21	12/5/2008	2 3	FALSE
MW-21	4/15/2009	0 7	FALSE
MW-21	10/9/2009	ND<40	FALSE
MW-21	4/30/2010	ND<40	FALSE
MW-21	10/5/2010	ND<40	FALSE
MW-21	5/12/2011	ND<40	FALSE
MW-21	10/6/2011	ND<40	FALSE
MW-21	4/19/2012	ND<40	FALSE

MW-22	12/16/1997	ND<40	FALSE
MW-22	1/14/1998	ND<40	FALSE
MW-22	2/13/1998	ND<40	FALSE
MW-22	3/6/1998	ND<40	FALSE
MW-22	10/15/1998	ND<40	FALSE
MW-22	3/25/1999	ND<40	FALSE
MW-22	9/23/1999	ND<40	FALSE
MW-22	3/29/2000	ND<40	FALSE
MW-22	9/14/2000	ND<40	FALSE
MW-22	3/12/2001	ND<40	FALSE
MW-22	10/13/2001	ND<40	FALSE
MW-22	3/8/2002	ND<40	FALSE
MW-22	9/19/2002	ND<40	FALSE
MW-22	4/15/2003	ND<40	FALSE
MW-22	10/16/2003	ND<40	FALSE
MW-22	3/25/2004	ND<40	FALSE
MW-22	10/22/2004	ND<40	FALSE
MW-22	10/18/2006	ND<40	FALSE
MW-22	4/9/2007	ND<40	FALSE
MW-22	9/24/2007	ND<40	FALSE
MW-22	5/2/2008	ND<40	FALSE
MW-22	12/5/2008	ND<40	FALSE
MW-22	4/15/2009	1	FALSE
MW-22	10/9/2009	ND<40	FALSE
MW-22	4/30/2010	ND<40	FALSE
MW-22	10/5/2010	ND<40	FALSE
MW-22	5/12/2011	ND<40	FALSE
MW-22	10/6/2011	ND<40	FALSE
MW-22	4/19/2012	ND<40	FALSE

MW-23	12/16/1997	ND<40	FALSE
MW-23	1/14/1998	ND<40	FALSE
MW-23	2/13/1998	ND<40	FALSE
MW-23	3/6/1998	ND<40	FALSE
MW-23	10/15/1998	ND<40	FALSE
MW-23	3/25/1999	ND<40	FALSE
MW-23	9/23/1999	ND<40	FALSE
MW-23	3/29/2000	ND<40	FALSE
MW-23	9/14/2000	ND<40	FALSE
MW-23	3/12/2001	ND<40	FALSE
MW-23	10/13/2001	ND<40	FALSE
MW-23	3/8/2002	ND<40	FALSE
MW-23	9/19/2002	ND<40	FALSE
MW-23	4/15/2003	ND<40	FALSE

MW-23	10/16/2003	ND<40	FALSE
MW-23	3/25/2004	ND<40	FALSE
MW-23	10/22/2004	ND<40	FALSE
MW-23	10/18/2006	ND<40	FALSE
MW-23	4/9/2007	ND<40	FALSE
MW-23	9/24/2007	ND<40	FALSE
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MW-23	4/30/2010	ND<40	FALSE
MW-23	10/5/2010	ND<40	FALSE
MW-23	5/12/2011	ND<40	FALSE
MW-23	10/6/2011	ND<40	FALSE
MW-23	4/19/2012	ND<40	FALSE

MW-24	12/16/1997	ND<40	FALSE
MW-24	1/14/1998	ND<40	FALSE
MW-24	2/13/1998	ND<40	FALSE
MW-24	3/6/1998	ND<40	FALSE
MW-24	10/15/1998	ND<40	FALSE
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MW-24	3/29/2000	ND<40	FALSE
MW-24	9/14/2000	ND<40	FALSE
MW-24	3/12/2001	ND<40	FALSE
MW-24	10/13/2001	ND<40	FALSE
MW-24	3/8/2002	ND<40	FALSE
MW-24	9/19/2002	ND<40	FALSE
MW-24	4/15/2003	ND<40	FALSE
MW-24	10/16/2003	ND<40	FALSE
MW-24	3/25/2004	ND<40	FALSE
MW-24	10/22/2004	ND<40	FALSE
MW-24	10/18/2006	ND<40	FALSE
MW-24	4/9/2007	ND<40	FALSE
MW-24	9/24/2007	ND<40	FALSE
MW-24	5/2/2008	ND<40	FALSE
MW-24	12/5/2008	2	FALSE
MW-24	4/15/2009	3 8	FALSE
MW-24	10/9/2009	6 31	FALSE
MW-24	4/30/2010	5 54	FALSE
MW-24	10/5/2010	1 61	FALSE
MW-24	5/12/2011	5 54	FALSE
MW-24	10/6/2011	2 1	FALSE
MW-24	4/19/2012	2 87	FALSE

MW-25	12/16/1997	ND<40	FALSE
MW-25	1/14/1998	ND<40	FALSE
MW-25	2/13/1998	ND<40	FALSE
MW-25	3/6/1998	ND<40	FALSE
MW-25	10/15/1998	ND<40	FALSE
MW-25	3/25/1999	ND<40	FALSE
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MW-25	9/14/2000	ND<40	FALSE
MW-25	3/12/2001	ND<40	FALSE
MW-25	10/13/2001	ND<40	FALSE
MW-25	3/8/2002	ND<40	FALSE
MW-25	9/19/2002	ND<40	FALSE
MW-25	4/15/2003	ND<40	FALSE
MW-25	10/16/2003	ND<40	FALSE
MW-25	3/25/2004	ND<40	FALSE
MW-25	10/22/2004	ND<40	FALSE
MW-25	10/18/2006	ND<40	FALSE
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MW-25	9/24/2007	ND<40	FALSE
MW-25	5/2/2008	2 1	FALSE
MW-25	12/5/2008	ND<40	FALSE
MW-25	4/15/2009	0 8	FALSE

MW-25	10/9/2009	ND<40	FALSE
MW-25	4/30/2010	ND<40	FALSE
MW-25	10/5/2010	ND<40	FALSE
MW-25	5/12/2011	ND<40	FALSE
MW-25	10/6/2011	3 6	FALSE
MW-25	4/19/2012	ND<40	FALSE

MW-25d	12/16/1997	ND<40	FALSE
MW-25d	1/14/1998	ND<40	FALSE
MW-25d	2/13/1998	ND<40	FALSE
MW-25d	3/6/1998	ND<40	FALSE
MW-25d	10/15/1998	ND<40	FALSE
MW-25d	3/25/1999	ND<40	FALSE
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MW-25d	3/29/2000	ND<40	FALSE
MW-25d	9/14/2000	ND<40	FALSE
MW-25d	3/12/2001	ND<40	FALSE
MW-25d	10/13/2001	ND<40	FALSE
MW-25d	3/8/2002	ND<40	FALSE
MW-25d	9/19/2002	ND<40	FALSE
MW-25d	4/15/2003	ND<40	FALSE
MW-25d	10/16/2003	ND<40	FALSE
MW-25d	3/25/2004	ND<40	FALSE
MW-25d	10/22/2004	ND<40	FALSE
MW-25d	10/18/2006	ND<40	FALSE
MW-25d	4/9/2007	ND<40	FALSE
MW-25d	9/24/2007	2 6	FALSE
MW-25d	5/2/2008	3 6	FALSE
MW-25d	12/5/2008	3 7	FALSE
MW-25d	4/15/2009	3 2	FALSE
MW-25d	10/9/2009	4	FALSE
MW-25d	4/30/2010	3 6	FALSE
MW-25d	10/5/2010	3 52	FALSE
MW-25d	5/12/2011	3 6	FALSE
MW-25d	10/6/2011	3 67	FALSE
MW-25d	4/19/2012	3 43	FALSE

Non-Parametric Tolerance Interval

Parameter: Zinc, total

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 82.4405%

Background measurements (n) = 56

Maximum Background Concentration = 50

Minimum Coverage = 95.1%

Average Coverage = 98.2456%

Location	Date	Value	Significant
MW-17	12/16/1997	ND<50	FALSE
MW-17	1/14/1998	ND<50	FALSE
MW-17	2/13/1998	ND<50	FALSE
MW-17	3/6/1998	ND<50	FALSE
MW-17	10/15/1998	ND<50	FALSE
MW-17	3/25/1999	ND<50	FALSE
MW-17	9/23/1999	ND<50	FALSE
MW-17	3/29/2000	ND<50	FALSE
MW-17	9/14/2000	ND<50	FALSE
MW-17	3/12/2001	ND<50	FALSE
MW-17	10/13/2001	ND<50	FALSE
MW-17	3/8/2002	ND<50	FALSE
MW-17	9/19/2002	ND<50	FALSE
MW-17	4/15/2003	ND<50	FALSE
MW-17	10/16/2003	ND<50	FALSE
MW-17	3/25/2004	ND<50	FALSE
MW-17	10/18/2006	ND<50	FALSE
MW-17	4/9/2007	ND<50	FALSE
MW-17	9/24/2007	2.3	FALSE
MW-17	5/2/2008	5.6	FALSE
MW-17	12/5/2008	ND<50	FALSE
MW-17	4/15/2009	6.4	FALSE
MW-17	10/9/2009	3.96	FALSE
MW-17	4/30/2010	ND<50	FALSE
MW-17	10/5/2010	7.98	FALSE
MW-17	5/12/2011	4.37	FALSE
MW-17	10/6/2011	ND<50	FALSE
MW-17	4/19/2012	ND<50	FALSE

MW-18	12/16/1997	ND<50	FALSE
MW-18	1/14/1998	ND<50	FALSE
MW-18	2/13/1998	ND<50	FALSE
MW-18	3/6/1998	56	TRUE
MW-18	10/15/1998	ND<50	FALSE
MW-18	3/25/1999	ND<50	FALSE
MW-18	9/23/1999	ND<50	FALSE
MW-18	3/29/2000	ND<50	FALSE
MW-18	9/14/2000	ND<50	FALSE
MW-18	3/12/2001	ND<50	FALSE
MW-18	10/13/2001	50	FALSE
MW-18	3/8/2002	ND<50	FALSE
MW-18	9/19/2002	ND<50	FALSE
MW-18	4/15/2003	ND<50	FALSE
MW-18	10/16/2003	ND<50	FALSE
MW-18	3/25/2004	ND<50	FALSE
MW-18	10/18/2006	ND<50	FALSE
MW-18	4/9/2007	ND<50	FALSE
MW-18	9/24/2007	2.1	FALSE
MW-18	5/2/2008	5.4	FALSE
MW-18	12/5/2008	ND<50	FALSE
MW-18	4/15/2009	ND<50	FALSE
MW-18	10/9/2009	8.55	FALSE
MW-18	4/30/2010	ND<50	FALSE
MW-18	10/5/2010	ND<50	FALSE
MW-18	5/12/2011	4.28	FALSE
MW-18	10/6/2011	ND<50	FALSE
MW-18	4/19/2012	ND<50	FALSE

MW-19	12/16/1997	ND<50	FALSE
MW-19	1/14/1998	ND<50	FALSE
MW-19	2/13/1998	54	TRUE
MW-19	3/6/1998	ND<50	FALSE
MW-19	10/15/1998	ND<50	FALSE
MW-19	3/25/1999	ND<50	FALSE
MW-19	9/23/1999	ND<50	FALSE
MW-19	3/29/2000	ND<50	FALSE
MW-19	9/14/2000	ND<50	FALSE
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MW-19	3/8/2002	ND<50	FALSE
MW-19	9/19/2002	ND<50	FALSE
MW-19	4/15/2003	ND<50	FALSE
MW-19	10/16/2003	ND<50	FALSE
MW-19	3/25/2004	ND<50	FALSE
MW-19	10/18/2006	ND<50	FALSE
MW-19	4/9/2007	ND<50	FALSE
MW-19	9/24/2007	1	FALSE
MW-19	5/2/2008	2 2	FALSE
MW-19	12/5/2008	7 5	FALSE
MW-19	4/15/2009	5 1	FALSE
MW-19	10/9/2009	5 22	FALSE
MW-19	4/30/2010	5 22	FALSE
MW-19	10/5/2010	ND<50	FALSE
MW-19	5/12/2011	5 98	FALSE
MW-19	10/6/2011	6 51	FALSE
MW-19	4/19/2012	ND<50	FALSE

MW-20	12/16/1997	ND<50	FALSE
MW-20	1/14/1998	ND<50	FALSE
MW-20	2/13/1998	ND<50	FALSE
MW-20	3/6/1998	ND<50	FALSE
MW-20	10/15/1998	ND<50	FALSE
MW-20	3/25/1999	ND<50	FALSE
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MW-20	3/25/2004	ND<50	FALSE
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MW-20	9/24/2007	ND<50	FALSE
MW-20	5/2/2008	ND<50	FALSE
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MW-20	4/15/2009	ND<50	FALSE
MW-20	10/9/2009	7 32	FALSE
MW-20	4/30/2010	ND<50	FALSE
MW-20	10/5/2010	ND<50	FALSE
MW-20	5/12/2011	ND<50	FALSE
MW-20	10/6/2011	ND<50	FALSE
MW-20	4/19/2012	ND<50	FALSE

MW-21	12/16/1997	ND<50	FALSE
MW-21	1/14/1998	ND<50	FALSE
MW-21	2/13/1998	ND<50	FALSE
MW-21	3/6/1998	ND<50	FALSE
MW-21	10/15/1998	ND<50	FALSE
MW-21	3/25/1999	ND<50	FALSE
MW-21	9/23/1999	ND<50	FALSE
MW-21	3/29/2000	ND<50	FALSE
MW-21	9/14/2000	ND<50	FALSE

MW-21	3/12/2001	ND<50	FALSE
MW-21	10/13/2001	ND<50	FALSE
MW-21	3/8/2002	ND<50	FALSE
MW-21	9/19/2002	ND<50	FALSE
MW-21	4/15/2003	ND<50	FALSE
MW-21	10/16/2003	ND<50	FALSE
MW-21	3/25/2004	ND<50	FALSE
MW-21	10/18/2006	ND<50	FALSE
MW-21	4/9/2007	ND<50	FALSE
MW-21	9/24/2007	2.4	FALSE
MW-21	5/2/2008	2.5	FALSE
MW-21	12/5/2008	5.2	FALSE
MW-21	4/15/2009	ND<50	FALSE
MW-21	10/9/2009	17.5	FALSE
MW-21	4/30/2010	9.83	FALSE
MW-21	10/5/2010	ND<50	FALSE
MW-21	5/12/2011	ND<50	FALSE
MW-21	10/6/2011	ND<50	FALSE
MW-21	4/19/2012	ND<50	FALSE

MW-22	12/16/1997	ND<50	FALSE
MW-22	1/14/1998	ND<50	FALSE
MW-22	2/13/1998	ND<50	FALSE
MW-22	3/6/1998	ND<50	FALSE
MW-22	10/15/1998	ND<50	FALSE
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MW-22	9/23/1999	ND<50	FALSE
MW-22	3/29/2000	ND<50	FALSE
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MW-22	3/12/2001	ND<50	FALSE
MW-22	10/13/2001	ND<50	FALSE
MW-22	3/8/2002	ND<50	FALSE
MW-22	9/19/2002	ND<50	FALSE
MW-22	4/15/2003	ND<50	FALSE
MW-22	10/16/2003	ND<50	FALSE
MW-22	3/25/2004	ND<50	FALSE
MW-22	10/18/2006	ND<50	FALSE
MW-22	4/9/2007	ND<50	FALSE
MW-22	9/24/2007	1.3	FALSE
MW-22	5/2/2008	1	FALSE
MW-22	12/5/2008	3.9	FALSE
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MW-22	10/9/2009	ND<50	FALSE
MW-22	4/30/2010	4.47	FALSE
MW-22	10/5/2010	ND<50	FALSE
MW-22	5/12/2011	ND<50	FALSE
MW-22	10/6/2011	ND<50	FALSE
MW-22	4/19/2012	ND<50	FALSE

MW-23	12/16/1997	ND<50	FALSE
MW-23	1/14/1998	ND<50	FALSE
MW-23	2/13/1998	ND<50	FALSE
MW-23	3/6/1998	ND<50	FALSE
MW-23	10/15/1998	ND<50	FALSE
MW-23	3/25/1999	ND<50	FALSE
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MW-23	3/29/2000	ND<50	FALSE
MW-23	9/14/2000	ND<50	FALSE
MW-23	3/12/2001	ND<50	FALSE
MW-23	10/13/2001	ND<50	FALSE
MW-23	3/8/2002	ND<50	FALSE
MW-23	9/19/2002	ND<50	FALSE
MW-23	4/15/2003	ND<50	FALSE
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MW-23	3/25/2004	ND<50	FALSE
MW-23	10/18/2006	ND<50	FALSE
MW-23	4/9/2007	ND<50	FALSE
MW-23	9/24/2007	ND<50	FALSE
MW-23	5/2/2008	1	FALSE

MW-23	12/5/2008	ND<50	FALSE
MW-23	4/15/2009	ND<50	FALSE
MW-23	10/9/2009	ND<50	FALSE
MW-23	4/30/2010	ND<50	FALSE
MW-23	10/5/2010	ND<50	FALSE
MW-23	5/12/2011	ND<50	FALSE
MW-23	10/6/2011	ND<50	FALSE
MW-23	4/19/2012	ND<50	FALSE

MW-24	12/16/1997	ND<50	FALSE
MW-24	1/14/1998	ND<50	FALSE
MW-24	2/13/1998	ND<50	FALSE
MW-24	3/6/1998	ND<50	FALSE
MW-24	10/15/1998	ND<50	FALSE
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MW-24	9/23/1999	ND<50	FALSE
MW-24	3/29/2000	ND<50	FALSE
MW-24	9/14/2000	ND<50	FALSE
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MW-24	10/13/2001	ND<50	FALSE
MW-24	3/8/2002	ND<50	FALSE
MW-24	9/19/2002	ND<50	FALSE
MW-24	4/15/2003	ND<50	FALSE
MW-24	10/16/2003	ND<50	FALSE
MW-24	3/25/2004	ND<50	FALSE
MW-24	10/18/2006	ND<50	FALSE
MW-24	4/9/2007	ND<50	FALSE
MW-24	9/24/2007	1 5	FALSE
MW-24	5/2/2008	154	TRUE
MW-24	12/5/2008	9	FALSE
MW-24	4/15/2009	5 8	FALSE
MW-24	10/9/2009	24 5	FALSE
MW-24	4/30/2010	6 38	FALSE
MW-24	10/5/2010	4 78	FALSE
MW-24	5/12/2011	24 6	FALSE
MW-24	10/6/2011	40	FALSE
MW-24	4/19/2012	14 8	FALSE

MW-25	12/16/1997	ND<50	FALSE
MW-25	1/14/1998	ND<50	FALSE
MW-25	2/13/1998	69	TRUE
MW-25	3/6/1998	ND<50	FALSE
MW-25	10/15/1998	ND<50	FALSE
MW-25	3/25/1999	ND<50	FALSE
MW-25	9/23/1999	ND<50	FALSE
MW-25	3/29/2000	ND<50	FALSE
MW-25	9/14/2000	ND<50	FALSE
MW-25	3/12/2001	ND<50	FALSE
MW-25	10/13/2001	ND<50	FALSE
MW-25	3/8/2002	ND<50	FALSE
MW-25	9/19/2002	ND<50	FALSE
MW-25	4/15/2003	ND<50	FALSE
MW-25	10/16/2003	ND<50	FALSE
MW-25	3/25/2004	ND<50	FALSE
MW-25	10/18/2006	ND<50	FALSE
MW-25	4/9/2007	ND<50	FALSE
MW-25	9/24/2007	ND<50	FALSE
MW-25	5/2/2008	2 7	FALSE
MW-25	12/5/2008	ND<50	FALSE
MW-25	4/15/2009	4 1	FALSE
MW-25	10/9/2009	ND<50	FALSE
MW-25	4/30/2010	11 4	FALSE
MW-25	10/5/2010	ND<50	FALSE
MW-25	5/12/2011	4 99	FALSE
MW-25	10/6/2011	ND<50	FALSE
MW-25	4/19/2012	ND<50	FALSE

MW-25d	12/16/1997	ND<50	FALSE
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MW-25d	1/14/1998	ND<50	FALSE
MW-25d	2/13/1998	ND<50	FALSE
MW-25d	3/6/1998	ND<50	FALSE
MW-25d	10/15/1998	ND<50	FALSE
MW-25d	3/25/1999	ND<50	FALSE
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MW-25d	3/29/2000	ND<50	FALSE
MW-25d	9/14/2000	ND<50	FALSE
MW-25d	3/12/2001	ND<50	FALSE
MW-25d	10/13/2001	ND<50	FALSE
MW-25d	3/8/2002	ND<50	FALSE
MW-25d	9/19/2002	ND<50	FALSE
MW-25d	4/15/2003	ND<50	FALSE
MW-25d	10/16/2003	ND<50	FALSE
MW-25d	3/25/2004	ND<50	FALSE
MW-25d	10/18/2006	ND<50	FALSE
MW-25d	4/9/2007	ND<50	FALSE
MW-25d	9/24/2007	ND<50	FALSE
MW-25d	5/2/2008	ND<50	FALSE
MW-25d	12/5/2008	ND<50	FALSE
MW-25d	4/15/2009	3 6	FALSE
MW-25d	10/9/2009	ND<50	FALSE
MW-25d	4/30/2010	ND<50	FALSE
MW-25d	10/5/2010	ND<50	FALSE
MW-25d	5/12/2011	ND<50	FALSE
MW-25d	10/6/2011	ND<50	FALSE
MW-25d	4/19/2012	ND<50	FALSE

APPENDIX VII
NCDENR Environmental Monitoring Reporting Form

NC DENR ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

Environmental Monitoring Reporting Form

Division of Waste Management - Solid Waste

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i)).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

S&ME, Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Edmund Henriques

Phone: 336-288-7180

E-mail: ehenriques@smeinc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
White Street Landfill - Phase III	North end of White Street, Greensboro, NC	41-12	.1600	April 18 - 20, 2012

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells ☐ Methane gas monitoring data
☐ Groundwater monitoring data from private water supply wells ☐ Corrective action data (specify) _____
☒ Leachate monitoring data ☐ Other(specify) _____
☒ Surface water monitoring data

Notification attached?

☒ No. No groundwater or surface water standards were exceeded.
☐ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Edmund Q.B. Henriques

Environmental Department Manager 336-288-7180

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

Edmund Q.B. Henriques 8/22/12
Signature Date

Affix NC Licensed/ Professional Geologist Seal

3718 Old Battleground Road, Greensboro, NC 27410

Facility Representative Address

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009

